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United Nations Industrial Development Organization

ORIGINAL: ENGLISH

Industrial Development Board

Eighth session
Vienna, 1-5 July 1991

Programme and Budget Committee

Seventh session
Vienna, 22-26 April 1991
Item 11 of the provisional agenda

SCALE OF ASSESSMENTS FOR THE APPORTIONMENT OF REGULAR BUDGET EXPENSES

Scale of assessments for the fiscal period 1992-1993

Note by the Secretariat

1. In accordance with Article 15.1 of the Constitution of UNIDO, "regular budget expenditures shall be borne by the Members, as apportioned in accordance with a scale of assessments established by the Conference by a two-thirds majority of the Members present and voting, upon the recommendation of the Board adopted by a two-thirds majority of the Members present and voting, on the basis of a draft prepared by the Programme and Budget Committee."

2. Article 15.2 states that "the scale of assessments shall be based to the extent possible on the scale most recently employed by the United Nations. No Member shall be assessed more than twenty-five per cent of the regular budget of the Organization."

3. The United Nations is currently in the process of preparing the scale of assessments for the calendar years 1992, 1993 and 1994 on which the UNIDO scale will be based. The Secretariat has been informed that the recommendations of the Committee on Contributions concerning the United Nations scale will be available in late June 1991. However, the final decision of the United Nations General Assembly on the subject may only be available in the third quarter of 1991. The scale of assessments for contributions to the UNIDO regular budget for the 1992-1993 biennium proposed in this document is based therefore, temporarily, on the United Nations scale of assessments for 1989, 1990 and 1991 as established by United Nations General Assembly resolution 43/223.

4. The proposed scale is also based on the assumption that Australia will re-join UNIDO for the 1992-1993 biennium. If Australia were to rejoin, UNIDO would have 152 Member States.

5. The application of the assessment rates adopted by the General Assembly for the years 1989-1991 to Member States of UNIDO in 1992-1993 produces a total of 100.67 per cent because of differences in membership between the United Nations and UNIDO (see annex, columns (1) and (2)). To produce a scale of assessments which covers 100 per cent of regular budget expenditures it is necessary to apply a mathematical coefficient to the United Nations rates for UNIDO Member States. The coefficient, which is not applied to the rates of United Nations Member States paying the minimum assessment of 0.01 per cent or the rate of the United Nations Member State paying at the maximum of 25.00 per cent, is calculated as follows:

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	United Nations rates of assessment (percentage)		UNIDO rates of assessment (percentage)	
Totals		100.67		100.00
For the Member State bearing the highest assessment	25.00		25.00	
For the 74 Member States bearing the lowest assessment (74 x 0.01)	0.74		0.74	
		25.74		25.74
Totals for calculation of coefficient		74.93		74.26

Coefficient $\frac{74.26}{74.93} = 0.991058$

6. Column (3) of the annex to the present note shows the adjusted rates for the scale of assessments for the fiscal period 1992-1993 for States that were Members of UNIDO as at 31 December 1990, by applying the coefficient 0.991058 as explained in paragraph 5 above.

7. Should the recommendations of the Committee on Contributions for the 1992, 1993 and 1994 United Nations scale be available on time, any ensuing adjustments to the scale of assessments proposed in the present document will be communicated to the Industrial Development Board at its eighth session. Additional adjustments to include any State which becomes a Member between January and November 1991 in accordance with Articles 3, 24 and 25 of the Constitution will be communicated to the General Conference at its fourth session. In accordance with financial regulation 5.6, new Members will be assessed for the year in which they become Members on the basis of the United Nations scale of assessments.

ACTION REQUIRED OF THE COMMITTEE

8. The Programme and Budget Committee may wish to propose to the Board that it recommend to the Conference the establishment of a scale of assessments for the biennium 1992-1993 temporarily based on the scale currently employed by the United Nations to be adjusted as soon as the United Nations scale for the calendar years 1992 to 1994 becomes available and subject to change depending on any State becoming a Member of UNIDO prior to the fourth session of the General Conference.

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ANNEX

SCALE OF ASSESSMENTS FOR 1992 AND 1993
(Percentage)

States	UNITED NATIONS		UNIDO
	Rates for Member States a/ (1)	Rates for non-Member States b/ (2)	Rates for Member States: (1) or (2) multiplied by co-efficient 0.991058 c/ (3)
Afghanistan	0.01		0.01
Albania	0.01		0.01
Algeria	0.15		0.15
Angola	0.01		0.01
Argentina	0.66		0.65
Australia	1.57		1.55
Austria	0.74		0.73
Bahamas	0.02		0.02
Bahrain	0.02		0.02
Bangladesh	0.01		0.01
Barbados	0.01		0.01
Belgium	1.17		1.16
Belize	0.01		0.01
Benin	0.01		0.01
Bhutan	0.01		0.01
Bolivia	0.01		0.01
Botswana	0.01		0.01
Brazil	1.45		1.44
Bulgaria	0.15		0.15
Burkino Faso	0.01		0.01
Burundi	0.01		0.01
Byelorussian Soviet Socialist Republic	0.33		0.33
Cameroon	0.01		0.01
Canada	3.09		3.06
Cape Verde	0.01		0.01
Central African Republic	0.01		0.01
Chile	0.08		0.08
China	0.79		0.78
Colombia	0.14		0.14
Comoros	0.01		0.01
Congo	0.01		0.01
Costa Rica	0.02		0.02
Cote d'Ivoire	0.02		0.02
Cuba	0.09		0.09
Cyprus	0.02		0.02
Czechoslovakia	0.66		0.65
Democratic People's Republic of Korea		0.05	0.05
Denmark	0.69		0.68
Dominica	0.01		0.01
Dominican Republic	0.03		0.03
Ecuador	0.03		0.03
Egypt	0.07		0.07
El Salvador	0.01		0.01
Equatorial Guinea	0.01		0.01

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ANNEX (continued)

SCALE OF ASSESSMENTS FOR 1992 AND 1993 (continued)
(Percentage)

States	UNITED NATIONS		UNIDO
	Rates for Member States a/ (1)	Rates for non-Member States b/ (2)	Rates for Member States: (1) or (2) multiplied by co-efficient 0.991058 c/ (3)
Ethiopia	0.01		0.01
Fiji	0.01		0.01
Finland	0.51		0.51
France	6.25		6.19
Gabon	0.03		0.03
Gambia	0.01		0.01
Germany	9.36		9.28
Ghana	0.01		0.01
Greece	0.40		0.40
Grenada	0.01		0.01
Guatemala	0.02		0.02
Guinea	0.01		0.01
Guinea-Bissau	0.01		0.01
Guyana	0.01		0.01
Haiti	0.01		0.01
Honduras	0.01		0.01
Hungary	0.21		0.21
India	0.37		0.37
Indonesia	0.15		0.15
Iran (Islamic Republic of)	0.69		0.68
Iraq	0.12		0.12
Ireland	0.18		0.18
Israel	0.21		0.21
Italy	3.99		3.95
Jamaica	0.01		0.01
Japan	11.38		11.28
Jordan	0.01		0.01
Kenya	0.01		0.01
Kuwait	0.29		0.29
Lao People's Democratic Republic	0.01		0.01
Lebanon	0.01		0.01
Lesotho	0.01		0.01
Liberia	0.01		0.01
Libyan Arab Jamahiriya	0.28		0.28
Luxembourg	0.06		0.06
Madagascar	0.01		0.01
Malawi	0.01		0.01
Malaysia	0.11		0.11
Maldives	0.01		0.01
Mali	0.01		0.01
Malta	0.01		0.01
Mauritania	0.01		0.01
Mauritius	0.01		0.01
Mexico	0.94		0.93
Mongolia	0.01		0.01
Morocco	0.04		0.04

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ANNEX (continued)

SCALE OF ASSESSMENTS FOR 1992 AND 1993 (continued)
(Percentage)

States	UNITED NATIONS		UNIDO
	Rates for Member States a/ (1)	Rates for non-Member States b/ (2)	Rates for Member States: (1) or (2) multiplied by co-efficient 0.991058 c/ (3)
Mozambique	0.01		0.01
Myanmar	0.01		0.01
Namibia	0.01		0.01
Nepal	0.01		0.01
Netherlands	1.65		1.63
New Zealand	0.24		0.24
Nicaragua	0.01		0.01
Niger	0.01		0.01
Nigeria	0.20		0.20
Norway	0.55		0.54
Oman	0.02		0.02
Pakistan	0.06		0.06
Panama	0.02		0.02
Papua New Guinea	0.01		0.01
Paraguay	0.03		0.03
Peru	0.06		0.06
Philippines	0.09		0.09
Poland	0.56		0.55
Portugal	0.18		0.18
Qatar	0.05		0.05
Republic of Korea		0.22	0.22
Romania	0.19		0.19
Rwanda	0.01		0.01
Saint Kitts and Nevis	0.01		0.01
Saint Lucia	0.01		0.01
Saint Vincent and the Grenadines	0.01		0.01
Sao Tome and Principe	0.01		0.01
Saudi Arabia	1.02		1.01
Senegal	0.01		0.01
Seychelles	0.01		0.01
Sierra Leone	0.01		0.01
Somalia	0.01		0.01
Spain	1.95		1.93
Sri Lanka	0.01		0.01
Sudan	0.01		0.01
Suriname	0.01		0.01
Swaziland	0.01		0.01
Sweden	1.21		1.20
Switzerland		1.08	1.07
Syrian Arab Republic	0.04		0.04
Thailand	0.10		0.10
Togo	0.01		0.01
Tonga		0.01	0.01
Trinidad and Tobago	0.05		0.05
Tunisia	0.03		0.03
Turkey	0.32		0.32

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ANNEX (continued)

SCALE OF ASSESSMENTS FOR 1992 AND 1993 (continued)
(Percentage)

States	UNITED NATIONS		UNIDO
	Rates for Member States a/ (1)	Rates for non-Member States b/ (2)	Rates for Member States: (1) or (2) multiplied by co-efficient 0.991058 c/ (3)
Uganda	0.01		0.01
Ukrainian Soviet Socialist Republic	1.25		1.24
Union of Soviet Socialist Republics	9.99		9.90
United Arab Emirates	0.19		0.19
United Kingdom of Great Britain and Northern Ireland	4.86		4.82
United Republic of Tanzania	0.01		0.01
United States of America	25.00		25.00
Uruguay	0.04		0.04
Vanuatu	0.01		0.01
Venezuela	0.57		0.56
Viet Nam	0.01		0.01
Yemen	0.01		0.01
Yugoslavia	0.46		0.45
Zaire	0.01		0.01
Zambia	0.01		0.01
Zimbabwe	0.02		0.02
Total	99.31	1.36	100

a/ Temporarily based on General Assembly resolution 43/223 A, para. 1; column (1) of the present annex covers Member States of the United Nations that are Members of UNIDO as at 31 December 1990.

b/ Temporarily based on General Assembly resolution 43/223 A, para. 3; column (2) of the present annex covers non-Member States of the United Nations that are Members of UNIDO as at 31 December 1990.

c/ Coefficient is not applied to Member States with assessment rates of 0.01% or 25.00% (see para. 5 of text above.)

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United Nations Industrial Development Organization

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Industrial Development Board

Eighth session
Vienna, 1-5 July 1991
Sub-item 11 (a) of the provisional agenda

Programme and Budget Committee

Resumed seventh session
Vienna, 27 June 1991
Item 10 of the agenda

PROGRAMME AND BUDGETS, 1992-1993

Scale of assessments for the fiscal period 1992-1993

Note by the Director-General

Addendum

1. In its conclusion 1991/7, the Programme and Budget Committee requested the Director-General to submit a scale of assessments for regular budget expenditures for 1992-1993 calculated on the basis of the current membership of the Organization. The proposed scale of assessments annexed to the present document complies with that request.

2. As stated in document IDB.8/4-PBC.7/6, paragraph 3, the final decision of the United Nations General Assembly on the scale of assessments for the calendar years, 1992, 1993 and 1994 may only be available in the third quarter of 1991. Therefore, the proposed scale of assessments as contained in the present document is based temporarily on the United Nations scale of assessments for 1989, 1990 and 1991 as established by United Nations General Assembly resolution 43/223. The scale of assessments may also be adjusted should any State announce, prior to the fourth session of the General Conference, its intention to join the Organization.

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ANNEX

Scale of assessments for 1992 and 1993

(Percentage)

	United Nations		UNIDO
	Rates for Member States a/ (1)	Rates for non-Member States b/ (2)	Rates for Member States: (1) or (2) multiplied by co-efficient 1.012268 c/ (3)
Afghanistan	0.01		0.01
Albania	0.01		0.01
Algeria	0.15		0.15
Angola	0.01		0.01
Argentina	0.66		0.67
Austria	0.74		0.75
Bahamas	0.02		0.02
Bahrain	0.02		0.02
Bangladesh	0.01		0.01
Barbados	0.01		0.01
Belgium	1.17		1.19
Belize	0.01		0.01
Benin	0.01		0.01
Bhutan	0.01		0.01
Bolivia	0.01		0.01
Botswana	0.01		0.01
Brazil	1.45		1.47
Bulgaria	0.15		0.15
Burkina Faso	0.01		0.01
Burundi	0.01		0.01
Byelorussian Soviet Socialist Republic	0.33		0.34
Cameroon	0.01		0.01
Canada	3.09		3.13
Cape Verde	0.01		0.01
Central African Republic	0.01		0.01
Chile	0.08		0.08
China	0.79		0.80
Colombia	0.14		0.14
Comoros	0.01		0.01
Congo	0.01		0.01
Costa Rica	0.02		0.02
Côte d'Ivoire	0.02		0.02
Cuba	0.09		0.09
Cyprus	0.02		0.02
Czechoslovakia	0.66		0.67
Democratic People's Republic of Korea		0.05	0.05
Denmark	0.69		0.70
Dominica	0.01		0.01
Dominican Republic	0.03		0.03
Ecuador	0.03		0.03
Egypt	0.07		0.07
El Salvador	0.01		0.01
Equatorial Guinea	0.01		0.01
Ethiopia	0.01		0.01
Fiji	0.01		0.01
Finland	0.51		0.52
France	6.25		6.33
Gabon	0.03		0.03

Gambia	0.01		0.01
Germany	9.36		9.48
Ghana	0.01		0.01
Greece	0.40		0.41
Grenada	0.01		0.01
Guatemala	0.02		0.02
Guinea	0.01		0.01
Guinea-Bissau	0.01		0.01
Guyana	0.01		0.01
Haiti	0.01		0.01
Honduras	0.01		0.01
Hungary	0.21		0.21
India	0.37		0.38
Indonesia	0.15		0.15
Iran (Islamic Republic of)	0.69		0.70
Iraq	0.12		0.12
Ireland	0.18		0.18
Israel	0.21		0.21
Italy	3.99		4.04
Jamaica	0.01		0.01
Japan	11.38		11.52
Jordan	0.01		0.01
Kenya	0.01		0.01
Kuwait	0.29		0.29
Lao People's Democratic Republic	0.01		0.01
Lebanon	0.01		0.01
Lesotho	0.01		0.01
Liberia	0.01		0.01
Libyan Arab Jamahiriya	0.28		0.28
Luxembourg	0.06		0.06
Madagascar	0.01		0.01
Malawi	0.01		0.01
Malaysia	0.11		0.11
Maldives	0.01		0.01
Mali	0.01		0.01
Malta	0.01		0.01
Mauritania	0.01		0.01
Mauritius	0.01		0.01
Mexico	0.94		0.95
Mongolia	0.01		0.01
Morocco	0.04		0.04
Mozambique	0.01		0.01
Myanmar	0.01		0.01
Namibia	0.01		0.01
Nepal	0.01		0.01
Netherlands	1.65		1.67
New Zealand	0.24		0.24
Nicaragua	0.01		0.01
Niger	0.01		0.01
Nigeria	0.20		0.20
Norway	0.55		0.56
Oman	0.02		0.02
Pakistan	0.06		0.06
Panama	0.02		0.02
Papua New Guinea	0.01		0.01
Paraguay	0.03		0.03
Peru	0.06		0.06
Philippines	0.09		0.09
Poland	0.56		0.57
Portugal	0.18		0.18
Qatar	0.05		0.05
Republic of Korea		0.22	0.22
Romania	0.19		0.19
Rwanda	0.01		0.01

Saint Kitts and Nevis	0.01		0.01
Saint Lucia	0.01		0.01
Saint Vincent and the Grenadines	0.01		0.01
Sao Tome and Principe	0.01		0.01
Saudi Arabia	1.02		1.03
Senegal	0.01		0.01
Seychelles	0.01		0.01
Sierra Leone	0.01		0.01
Somalia	0.01		0.01
Spain	1.95		1.97
Sri Lanka	0.01		0.01
Sudan	0.01		0.01
Suriname	0.01		0.01
Swaziland	0.01		0.01
Sweden	1.21		1.23
Switzerland		1.08	1.09
Syrian Arab Republic	0.04		0.04
Thailand	0.10		0.10
Togo	0.01		0.01
Tonga		0.01	0.01
Trinidad and Tobago	0.05		0.05
Tunisia	0.03		0.03
Turkey	0.32		0.32
Uganda	0.01		0.01
Ukrainian Soviet Socialist Republic	1.25		1.27
Union of Soviet Socialist Republics	9.99		10.11
United Arab Emirates	0.19		0.19
United Kingdom of Great Britain and Northern Ireland	4.86		4.92
United Republic of Tanzania	0.01		0.01
United States of America	25.00		25.00
Uruguay	0.04		0.04
Vanuatu	0.01		0.01
Venezuela	0.57		0.58
Viet Nam	0.01		0.01
Yemen	0.01		0.01
Yugoslavia	0.46		0.47
Zaire	0.01		0.01
Zambia	0.01		0.01
Zimbabwe	0.02		0.02
Total	**97.74**	**1.36**	**100.00**

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a/ Temporarily based on General Assembly resolution 43/223A, para. 1; column (1) of the present annex covers Member States of the United Nations that are Members of UNIDO as at 30 April 1991.

b/ Temporarily based on General Assembly resolution 43/223A, para. 3; column (2) of the present annex covers non-Member States of the United Nations that are Members of UNIDO as at 30 April 1991.

c/ The coefficient is not applied to Member States with assessment rates of 0.01% or 25.00%.

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United Nations Industrial Development Organization

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Industrial Development Board

Eighth session
Vienna, 1-5 July 1991

Programme and Budget Committee

Seventh session
Vienna, 22-26 April 1991
Item 17 of the provisional agenda

COMPUTERIZATION PROGRAMME OF UNIDO

Comments on the report of the External Auditor on the in-depth examination of all aspects of the acquision of the electronic data-processing system

Submitted by the Director-General

1. Over the past five years, the Organization has had to cope with a series of financial crises and rapidly growing demand for its services under negative or zero real growth budgets. The workload of the Secretariat has increased enormously while staffing levels have remained more or less the same since 1986. Technical co-operation delivery rose from $99.6 million in 1986 to $159.5 million in 1990 (an increase of 60 per cent) and the value of approved projects (project allotment documents issued) increased from $93.3 million to $212.7 million (an increase of 127 per cent) over the same period. At the same time, the total number of authorized posts dropped from 1,310 in 1986-1987 to 1,253 in 1989, rising slightly to 1,289 in 1990-1991. Increased output has been achieved mainly through improved staff productivity and through the redeployment of substantial resources from support services to operational activities. Computerization played an important role in enhancing efficiency in the Secretariat.

2. UNIDO had tried for many years to cope with growing demands for computing services with a modest use of automation tools and services. Although, in the past, the Organization had some technical staff, it relied on the International Atomic Energy Agency (IAEA) for mainframe computing power, data storage and all related administrative activities. As IAEA's own demand for services increased, backlogs of work occurred and services in general continued in an increasingly slow and fragmented fashion. It became obvious that the Organization would benefit from an in-house integrated system with its own mainframe, terminals, workstations and the related cabling.

3. These conclusions and objectives were substantiated in 1988 by independent consultants, comparisons with similar organizations and discussions with various vendors. Based on the information gathered and on the fact that IAEA was planning to expand and upgrade its computerization programme, plans for an in-house computing centre were formulated. In March 1989 the plan and the financial implications were presented to the Permanent Missions which reacted favourably to the Secretariat's proposals. Implementation of the programme commenced thereafter.

4. Towards the end of 1989 and the early part of 1990, it gradually became apparent that the electronic data-processing (EDP) programme was causing substantial budgetary cost overruns. The Director-General in March 1990 ordered an internal investigation to determine why a problem of such major proportions had occurred. Based on the findings and recommendations of the internal studies - most of which were finalized at the end of April 1990 and which were made available to the External Auditor - certain remedial actions including changes in procedures and control systems, were immediately initiated. (Those changes are referred to in the annex to the present document.) The internal review of whether irregularities had occurred because of the magnitude of the costs did not disclose any wrongdoings or discrepancies of a financial nature attributable to any of the staff. It was emphasized, however, that controls should be strengthened and observed.

5. As soon as the Director-General was apprised of the magnitude of the cost overrun of the EDP programme, he took the earliest opportunity to bring the matter to the attention of the Member States. At the sixth session of the Programme and Budget Committee (June 1990), a detailed conference room paper (PBC.6/CRP.5) was formally presented on the subject. Subsequently, documents IDB.7/31 and Add.1 were submitted to the Board at its seventh session (November 1990). Those documents provide, inter alia, background information, reasons for the cost overruns and the measures taken by the Organization to establish effective controls. They also present a viable proposal for a reduced EDP programme as well as a feasible financing scheme in accordance with conclusion 1990/2 of the Programme and Budget Committee. The purpose of those measures was to place tighter control not only on the EDP programme, but also to prevent a recurrence of cost overruns generally and to ensure an effective interface between programmes, financial planning and reporting throughout the Organization. Also at that time, the Director-General in a letter of 1 November 1990 had taken the initiative to invite the External Auditor to undertake an in-depth examination of the EDP programme. Similarly, in his opening address to the seventh session of the Board, the Director-General proposed the establishment of

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an independent group of experts to examine all the technical aspects of the EDP programme.

6. Following consideration of documents IDB.7/31 and IDB.7/31/Add.1, the Board adopted decision IDB.7/Dec.26 which, inter alia:

- Requested the External Auditor to examine in depth all aspects of the acquisition of the electronic data-processing system, and report, in terms of conformity with or departure from financial propriety, procedural responsibility and fiscal management to the Programme and Budget Committee at its seventh session;

- Decided to establish urgently a working group of independent experts funded by Member States whose composition is to be decided upon in consultation between Member States with the following terms of reference:

  (i) To reassess UNIDO's needs regarding computerization from the technical point of view;

  (ii) To examine the contractual aspects of the proceedings as well as the implications of the clauses within those contracts for UNIDO;

  (iii) To study the financial options applicable to the EDP system;

  (iv) In light of this evaluation to make appropriate recommendations on an EDP system.

7. The External Auditor has now reported on his examination (PBC.7/3) and has noted various deficiencies, most of which had already been identified as a result of UNIDO internal reviews, and for which corrective measures either have been or are in the course of being taken.

8. The report of the External Auditor, in accordance with decision IDB.7/Dec.26, presents a succinct examination of the EDP system acquisition project of UNIDO. It focuses on three aspects of interest to Member States, namely, the conformity with or departure from financial propriety, procedural responsibility and fiscal management. Although greater balance in the treatment of "conformity with" and "departure from" could have been introduced into the report, the document nevertheless is, on the whole, quite useful as it provides an important basis for improving the overall effectiveness and efficiency of the EDP programme of UNIDO. Moreover, the report serves to reinforce the measures already initiated by the Director-General to introduce greater transparency into the EDP programme and to ensure its effective management by UNIDO.

9. The Director-General has always maintained the view that transparency and constructive dialogue on issues of interest to Member States serve the best interest of the Organization. For this reason, the Secretariat has endeavoured to keep Member States informed on all aspects of the EDP programme of the Organization. In this regard, it is noteworthy that the report of the External Auditor in paragraph 78 states: "Our current audit did not indicate that the Secretariat should have sought at any moment to deliberately withhold from the Policy-Making Organs of the Organization any important budgetary or financial information on the EDP system acquisition project." Thus in document IDB.7/31 the Director-General had indicated that while some of the cost increases had been recognized towards the end of 1989, a complete and accurate picture did not emerge until March 1990. That is corroborated by the report of the External Auditor (paragraph 82) which concluded that the estimated costs and budgetary implications of the programme hitherto were "often succinct, partial and tentative". Immediately thereafter, the Executive Management Committee of the Secretariat was convened to examine the full financial implications of the EDP programme and to take urgent remedial steps with a view to bringing the programme back on track from a managerial and financial standpoint. It is also worth referring to paragraph 79 of the External Auditor's report which pointed out, in particular, that: "... the Secretariat (had) tried to administer the project in conformity with the applicable fiscal management principles and procedures but that the complexity of the project (had) apparently amplified the already existing procedural weaknesses and shortcomings in several management areas of the Organization."

10. Against the backdrop of remedial and preventive measures taken by the Secretariat, the recommendations of the External Auditor, on the whole, constitute a further step in streamlining management of the computerization programme of UNIDO. While the Secretariat notes with appreciation the valuable recommendations for procedural and managerial improvements contained in the External Auditor's report, the following points are submitted as supplementary information and clarification of some of the issues raised in the report:

Strategic planning - paragraphs 8 to 12

11. It is acknowledged that a full strategic information systems plan was not compiled in advance, but time constraints and limited human and financial resources simply did not allow for such in-depth studies. However, rapid strengthening of computerization was considered of paramount importance to cope with growing needs during a zero growth budget period. The approach decided on was dictated by the twin needs to (i) take over the applications being run on the IAEA mainframe and (ii) to lay the foundation for future computer applications in a cost-effective manner.

Limitations of the GMO report - paragraph 16

12. Gesellschaft für Management- und EDV-Organisationsberatung (GMO) were well aware that UNIDO was assessing its office automation strategy for the future and was considering the advantage of integrating the office automation and data-processing architectures. Their terms of reference did not, however, include a detailed study of such possibilities, but for calculation purposes they based their recommendation on the cost of using two separate architectures.

Centralization/decentralization - paragraphs 18 to 20

13. The statement that "the concept of centralization of all computer power already at that time was no longer realistic because of the general trend towards PCs ...", attributed to the GMO report, is not necessarily correct. Decentralization is advantageous only for certain types of application, while for others centralization still offers the best solution. The latter is especially true in the case of large data bases which are the repository of

information that is updated from many sources and queried by many different users, as is the case with the project cycle. In an organization such as UNIDO, a mainframe computer is an absolute necessity because it represents the most effective means of safeguarding institutional data by ensuring organized, periodic back-up procedures and disaster recovery. It further provides the best method of supporting an integrated data base with multi-user access. Only by centralizing the applications development work is it possible to establish and enforce standards to ensure future maintainability of systems and programs and to avoid redundant development of similar systems for different divisions of the Organization.

Mainframe considerations - paragraphs 21, 22

14. The External Auditor's suggestion that it might have been possible to keep the IBM 9370 "to support all OA activities, thus allowing the Organization to acquire a smaller mainframe" is not feasible. The 9370 is limited in processing power and cannot support more than 160 workstations. If it had been kept, it would have had to be either supplemented with additional 9370s, or replaced with larger and larger machines. It is also a fallacy to assume that a smaller mainframe would be more economical in terms of facilities management resources, quite apart from the fact that such a machine would not make adequate provision for projected capacity requirements. Furthermore, it is incorrect to assume that it would be simpler to operate two separate machines than to operate a single one.

Advantages of a mainframe - paragraphs 23, 24

15. The External Auditor refers to the lack of a complete analysis of computerization solutions, other than the one provided by a large mainframe, as a shortcoming. However, it must be borne in mind that the EDP management had to assign first priority to keeping existing applications running without interruption. Efforts therefore clearly had to be focused initially, not on a decentralization project or on a choice of new architectures, but rather on the acquisition of hardware and software tools that would guarantee:

(a) The continued running of existing applications in such a way that it would be transparent to end-users;

(b) An operating environment that would enable existing applications development staff to maintain and/or develop data-processing systems by using their existing skills;

(c) A platform on which office applications such as electronic mail, document transfer and routing of documents for printing could be carried out;

(d) A platform on which future integrated systems could be built by providing applications development staff with additional software tools that would be compatible with their existing skills.

16. At the time, this guarantee could be provided in a practical and simple way only by a mainframe computer such as the one acquired. That management, therefore, adopted the correct global approach has been demonstrated by the results thus far achieved: (i) establishing an independent computer centre; (ii) migrating 100 per cent of the applications from the IAEA mainframe; (iii) smoothness of operation for programmers and end-users. All of this was achieved in a period of five months and any other approach would have entailed unacceptable risks and delays.

Personal computers - paragraph 25

17. The External Auditor questions the advisability of placing personal computers in locations where "inexpensive terminals" would be adequate for the jobs to be done. The fact is that an "inexpensive terminal" is only marginally cheaper than a basic personal computer (PC) configuration with basic software, but such an "inexpensive" approach eliminates all flexibility and enhanced functionality that can be achieved with a PC, including the capability of connecting to a data network such as the token ring.

Control responsibilities - paragraph 27

18. The External Auditor stated that one unit did not take the initiative to ensure a better exchange of information between different services so as to give a better overview and enhance control. As the financial and administrative aspects are not assigned to that one particular unit within the Department of Administration, it cannot be held responsible for failing to control the EDP programme properly.

Role of the Management Information Technical Committee - paragraphs 28, 29

19. The External Auditor refers to the guidelines for the acquisition of computer resources and indicated that those were not observed for the mainframe project. The terms of reference of the Management Information Technical Committee (MITC) do not call for its Chairman, irrespective of the amount of information available, to exercise budgetary or expenditure control. For the acquisition of the mainframe and related services as well as for the acquisition of peripheral equipment, requisitions with the correct amounts were prepared by the Electronic Data-processing and Office Automation Service, but the certification of funds and financial control are exercised elsewhere in the Department of Administration.

Bidding - paragraph 51

20. The lack of an overall in-depth analysis of UNIDO's needs and related planning may have affected the development and implementation of computer applications in the past, but the principles and procedures of competitive bidding were never violated. The Secretariat is currently committed, as part of its computerization programme, to avoiding piecemeal procurement by engaging in a global, top-down approach.

Purchase of an IBM 9370 - paragraph 57

21. The need for the IBM 9370 as an office automation central computer was important to the Secretariat. The bidding procedure took place from August to October 1988 (although the contract was only signed in March 1989) and the equipment was in operation for 19 months, from March 1989 to October 1990.

Software for office automation - paragraph 58

22. During the course of procurement it was learned that the software in question could be obtained only from IBM.

Validity of the IBM offer - paragraph 63

23. According to UNIDO's normal practice, offers should be valid for 90 days, but it is not a requirement that the contract should be signed only on or after the last day of validity. The purpose of awarding a contract to IBM by mid-November 1989 was to ensure that the proposed implementation by July 1990 would be met, i.e. the transfer of all data from the IAEA mainframe.

Competitive proposals - paragraph 66

24. The Secretariat has taken note of the recommendations made by the External Auditor for the procedures of calling for competitive proposals. The established procedures followed by UNIDO Contracts and Purchase Sections and the relevant financial rules will be elaborated in future to offer better safeguards and, as appropriate, more transparency. Improved procedures of the Committee on Contracts and guidelines on the format of submissions to the Committee will be issued.

Redeployment of funds - paragraphs 86, 88

25. We concur with the comments of the External Auditor that UNIDO's presentation to the policy-making organs related to the computerization programme should have been separated from the normal redeployment exercise and that all related costs should have been clearly identified. The Secretariat did seek authorization from the policy-making organs for redeployment of funds for the EDP programme. In documents PBC.5/11 and GC.3/CRP.6 it informed the policy-making organs of the additional resources required for the EDP programme in 1988-1989 and sought the formal authority of the policy-making organs for the redeployment of resources to meet the additional expenditures (PBC.5/11, para. 5). The Programme and Budget Committee in its conclusion 1989/6, inter alia, recommended to the Board that it take note of the revised appropriations for 1988-1989 contained in annex IV of document PBC.5/11. Subsequently, the Board included in its decision IDB.5/Dec.27 a reference to having reviewed "conclusion 1989/6 of the Programme and Budget Committee and the revised appropriations for the biennium 1988-1989 contained in annex IV of document PBC.5/11". Although no action was taken by the General Conference, the fact remains that the Secretariat did make the effort to bring the matter to the attention of the Conference (GC.3/CRP.6) and to seek formal authorization to incur additional expenditures for the EDP programme within the total appropriation for 1988-1989. The Director-General has now issued instructions (DG/B.142) that procedures be changed with immediate effect so as to avoid such a recurrence, particularly with respect to large programmes.

26. The expected shortfall of resources for the EDP programme in 1990-1991 was not brought formally to the attention of the General Conference in November 1989 for three reasons: (i) the cost increases expected at that time did not provide a complete and accurate picture of the additional resources required, and, consequently, it was not deemed appropriate to present the policy-making organs with incomplete and, on hindsight, inaccurate estimates of the full cost of the EDP programme for the period 1990-1995. The External Auditor has also concluded that the estimated costs and budgetary implications of the programme presented were often incomplete or tentative; (ii) the correct procedure, in any case, is to submit the matter for approval to the General Conference, through the Programme and Budget Committee and the Board, a procedure the Secretariat followed through documents PBC.6/11, IDB.7/31 and Add.1; and (iii) the extremely limited time available to prepare a report on the matter from the time the cost increase became known in late October 1989 to the holding of the third review of the General Conference in November 1989.

27. On the matter of seeking formal authority to incur additional expenditures on EDP, an important distinction should be made between the resources for EDP included in the 1988-1989 appropriations which were formally approved by the policy-making organs on one hand, and the additional resources needed to cover overexpenditures from economies, for which the Secretariat sought formal authorization from the policy-making organs as indicated above.

28. Based on the outcome of the in-depth examination by the External Auditor of UNIDO's EDP programme, and the recommendations which will shortly emerge from the independent group of experts established by the Industrial Development Board, it is the Secretariat's conviction that Member States would agree to a timely implementation of the reduced EDP programme as outlined in documents IDB.7/31 and Add.1, thus strengthening the hands of the Secretariat in delivering more cost effectively and efficiently the industrial development needs of the developing countries. The success of UNIDO's EDP programme and its related outputs is indeed of mutual benefit to the Secretariat and the Member States.

Annex

Chronology of events and action taken

18 June 1990

A briefing session for Permanent Missions was held at which the Director-General reported the cost overrun.

25-29 June 1990

A conference room paper (PBC.6/CRP.5) was issued to fully inform the Programme and Budget Committee about the cost overrun.

July - October 1990

- Documents IDB.7/31 and IDB.7/31/Add.1 provided details on all aspects of the EDP programme to ensure greater transparency.
- Detailed replies to two questionnaires by the Permanent Mission of Japan were prepared and transmitted.
- Negotiations were initiated with IBM to extend the contract period to alleviate cash-flow pressure.
- Informal proposals were made to other VIC-based organizations for sale of presently available computer capacity.

1 November 1990

In a letter to the External Auditor, the Director-General requested that an independent special audit be done of the EDP programme.

6 November 1990

In his address to the seventh session of the Board, the Director-General proposed an independent expert group to examine the technical aspects of the EDP programme.

The following changes were introduced as a result of the internal studies:

1. The framework of a strategic information systems plan to establish overall priorities and to provide a clear policy framework for the EDP programme has been drafted and is presently under consideration for finalization.
2. Revised terms of reference for the Computer Management Committee (CMC) and the Computer Technical Committee (CTC) have been prepared to provide for more effective policy and budgetary control.
3. A charge-back system to distribute EDP costs to users in an equitable way is near completion. The first version is presently being evaluated and it should provide effective control over budgets and expenditures. Although the system is still in the development phase, it has already been used in preparing the proposals for the 1992-1993 programme and budgets.
4. A new coding system to track computer expenditures was introduced in December 1990 to provide information about various EDP-related costs in all programme elements. The system will be expanded to encompass allotments as well as other major projects.
5. A reporting system to inform management about the development of systems, the usage of the mainframe capacity and other related matters is being developed and is expected to be introduced in March 1991.
6. The financial rules and regulations and the roles and responsibilities of certifying and approving officers are presently being reviewed in conjunction with the preparation of a financial and accounting manual.
7. The structure of the Electronic Data-processing and Office Automation Service is being strengthened and recruitment action for a Director has been initiated.

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Item 17 of the provisional agenda

COMPUTERIZATION PROGRAMME OF UNIDO

Report of the working group of independent experts on the computerization of UNIDO*
(Vienna, 11-14 February 1991)

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LETTER OF TRANSMITTAL

Dear Mr. President,

I am pleased to submit to you the Report of the Working Group of Independent Experts on the Computerization Programme of UNIDO. Its technical contents is unanimously supported by all members of the Group.

The text of the report includes contributions from most members and has been formally discussed paragraph by paragraph. We ask you to excuse any awkwardness of style that results from this collective method of authorship. We have made a serious attempt to keep the text short, pertinent and free of jargon.

I hope the Industrial Development Board will find our report of value. We in turn would ask you to convey our thanks to all UNIDO staff whose co-operation with and assistance to us was praiseworthy. Without the help of the two excellent secretaries provided by the Department of Administration we could not have completed this work in such good time.

(Signed) Bernard Adamczewski
Chairman
Working Group of Experts on
Computerization of UNIDO

H.E. Mr. Ole Lonsmann Poulsen
President of the seventh session
of the Industrial Development Board

I. SYNOPSIS AND SUMMARY OF RECOMMENDATIONS

1. The working group of independent computer experts met in Vienna from 11 to 14 February to evaluate and make recommendations on the automation programme at UNIDO. Our review consisted largely of interviews with key staff and users and the examination of important documents.

2. There were 11 of us of diverse national, technical, and organizational backgrounds. Nevertheless, a considerable degree of unanimity on all major technical questions was achieved after the second day of work.

3. We have no confidence in the $44 million total cost estimate for the programme as currently conceived. We feel it derives from questionable assumptions. The lack of specific information did not permit the group to design technical alternative solutions for UNIDO. In the absence of such alternatives, it was not possible to attach financial values to them. The group therefore was not able at this time to respond to the President's

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desire for financial options for the computer programme. However, one expert considers that the part of the mandate of the Group relating to the financial aspects of the computerization programme of UNIDO needs further study. In consequence, this expert intends to submit as soon as possible her conclusions and recommendations on the financial aspects of the programme.

4. The automation programme overall is too capital intensive: too much has been invested in hardware and not enough in the professionals needed to make it productive. This imbalance has exacerbated considerably the growing pains that are normally associated with the introduction of automated systems. It has in some instances resulted in computer procedures whose marginal costs exceed benefits.

5. In order to make our recommendations useful we have made them as specific as possible. We were limited by the lack of the quality of the information available to us in a number of important areas. Furthermore, we did not believe extending our work would improve this situation.

6. We have identified a number of problems and make recommendations against each problem in this report.

Major problems identified:

- No basis for decision to centralize
- No step-by-step plan
- Too much capacity in present mainframe
- Office automation maintenance may be too expensive
- Unfocused development effort
- Archaic and inefficient applications and development methods
- Single supplier mindset narrows options and increases costs
- Systems that do not improve the process

7. Because of their urgency we would like to highlight two recommendations and present both here:

8. The immediate appointment of a two- or three-man team of independent consultants of unquestionable professional competence to analyse in detail UNIDO needs and establish an overall EDP development policy in line with the recommendations of our group. This is a critical task which will require at least 4 man/months of effort and could cost about $250,000.

9. We would like to draw the Board's attention to UNIDO's procedural timetable:

22-26 April 1991	Programme and Budget Committee, seventh session
1-5 July 1991	Industrial Development Board, eighth session
18-22 November 1991	General Conference, fourth session

10. If the recommendation by the consultants is to be available for consideration by the November General Conference, then the interim report has to be completed by 15 May 1991. Allowing them six weeks' work implies they need to be appointed and working by 1 April 1991.

11. No substantive changes in the present EDP departments should be made until the analysis mentioned above is completed and can be taken into account. The present procedures, maladroit as some of them are, can continue to serve UNIDO for not more than another 12 to 15 months. Therefore, the Board should not expect to see actual cost reductions for 6-12 months at least.

12. During the course of the review, many in our group developed a considerable sympathy for the EDP staff. They are trying to do what is typically a very difficult job in trying circumstances. Problems identified cannot be attributed exclusively to the EDP Department, but are a consequence of fundamental issues with respect to organization, management and technical judgements.

II. LEGAL ASPECTS

13. A key consideration in making our recommendations was the degree to which UNIDO had flexibility under its automation contracts. A review of the contracts leads to the conclusion that UNIDO has the right under the IBM contracts to request a change in the scope of the services and hardware provided by IBM. Such a renegotiation, however, should not be limited exclusively to the IBM contracts, but should also apply to other suppliers.*

14. There are two main contracts of UNIDO with IBM:

(a) System Integration (Mainframe), UNIDO contract No. 89/467;

(b) Facilities Management, UNIDO contract No. 90/335.

15. In the 7 December 1989 Mainframe Agreement, UNIDO agreed to acquire and IBM agreed to furnish an integrated turn-key solution for UNIDO's new data center for a fixed price. The contract was based upon IBM's proposal for the establishment of a UNIDO mainframe computer facility dated 5 October 1989 (including amendment letters as of 2 November 1989 and 14 November 1989) in response to UNIDO's request for proposal dated 7 September 1989 for the acquisition of the hardware and software of the mainframe computer for UNIDO.

16. The Mainframe contract (Section 7(c)) provides that either party "at any time during the Project" may request changes to the "Deliverables/Services". Section 1 of the contract defines Deliverables/Services to include hardware and software.

17. The party desiring such changes must give notice in writing to the other party of the desired changes. A written reply must then be given within a reasonable time, but "in any event not more than 45 days", stating "whether the change can be made and the effect the change will have on the schedule, on the price and/or on the terms and conditions". (Section 7 (c))

18. The Mainframe contract also has a Termination Clause (Section 8) that allows either party by

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* The group relied upon Mr. J. Levinson, who is an experienced lawyer.

written notice to the other party to terminate the contract for failure to comply with any of its terms and conditions, if such failure is not corrected within 45 days of the date of written notice having been given of the failure and of the intent to terminate.

19. Additionally, there is a General Clause (Section 12) which provides that either party shall be released from its obligations under this Agreement, "to the extent that it is prevented from performing them by circumstances beyond its control".

20. There is no contract provision which provides for a penalty to UNIDO for either termination under Section 12 or requesting changes to the "Deliverables/Services" under Section 7 (c) of the contract.

21. With respect to the Mainframe contract, then, in accordance with the specific provisions of the contract (Section 7 (c)), UNIDO can request a change in the scope of the contract, including both the hardware and software. Invoking Section 12 of the contract, relating to unforeseen circumstances, is more problematic. The question of what constitutes unforeseen circumstances would undoubtedly be highly controversial.

22. The Facilities Management contract includes a provision (Section 6) which is virtually identical to Section 7 (c) of the Mainframe Agreement. The Facilities Management contract includes a specific termination provision (Section 7). This provision allows termination of the contract on 31 December 1991 or 31 December 1993 "by giving 6 (six) months written notice to IBM, i.e. not later than 30 June 1991 and 30 June 1993, respectively".

23. Both contracts incorporate as an integral part of the contract UNIDO's General Conditions. The General Conditions provide for arbitration as the means of settling disputes under the contract.

24. In sum, both of UNIDO's main contracts with IBM permit UNIDO to immediately initiate a reduction in the scope of contract, although such a request is subject to negotiation with IBM. Additionally, the Facilities Management contract specifically allows UNIDO to terminate the contract upon giving six months' notice, prior to the possible termination dates of 31 December 1991 or 31 December 1993.

25. Both contracts also explicitly state that by entering into such contracts, UNIDO has not waived the immunities granted to it by the Headquarters Agreement with the Government of Austria and the United Nations Convention. There is no equivalent in Austria of the United States Foreign Sovereign Immunities legislation that makes a distinction between commercial and non-commercial activities of international organizations.

26. In addition to the two main IBM contracts, there are other contracts which relate to office automation and data processing that should be reviewed, notably the Wang Word Processing Lease Agreement and Maintenance Agreement. The Wang Lease Agreement includes a termination provision with specific penalty values for termination by UNIDO (paragraph 7). The Maintenance Agreement runs from calendar year to year and may be terminated by either party upon 30 days' notice to the other party with no penalty.

III. MAJOR PROBLEMS IDENTIFIED AND RECOMMENDATIONS

NO BASIS FOR DECISION TO CENTRALIZE

27. The GMO study recommending centralization of computing at UNIDO is not at all compelling. It is the Group's considered judgement that a centralized approach is very likely not the best one for UNIDO, especially considering the high costs of the centralized concept. We feel that any decision requires a substantive and complete analysis.

RECOMMENDATIONS

(i) Consultants should be engaged to perform a complete automation needs assessment for UNIDO. The analysis should be detailed and thorough and should review each existing and proposed application to determine if it could be done more effectively by a distributed processing scheme. The analysis should include costs, schedule and options for the use of distributed processing.

(ii) The consultants who are engaged for the complete assessment should also be asked to provide a more in-depth recommendation for an appropriate interim (two-year) sizing of the mainframe. This recommendation should be used as the basis for a negotiation of the contracts with the vendor.

NO STEP-BY-STEP PLAN

or

INADEQUATE INSTITUTIONAL COST AND PROCESS REVIEW

28. The process whereby individual software applications are decided upon and launched must be improved and institutionalized. It is apparent that a management review process is not now in effect. As a result it appeared to the group that application development efforts were sometimes being misspent on projects with little demonstrated merit while other projects with potentially greater impact were not given enough attention.

RECOMMENDATIONS

(i) UNIDO, taking into consideration its surroundings and the needs of the Member States, should prepare a plan which identifies the functions of the Organization at large, in a long-, short- and medium-term plan, which would allow the identification of its mission, objectives and strategies. It is on the basis of this master plan that UNIDO should implement projects, decide on investment, re-organization and on methods for follow-up and control.

(ii) A strategic information systems plan should be developed. This plan would co-ordinate information activities for the short and medium term, integrated with the organizational plan covering information and system needs, the functional model, data architecture, system architecture and strategy, training, priorities, costs and schedules. Procedures and priority criteria should be laid down in a handbook.

(iii) The systems plan should be reviewed periodically to validate achievement of objectives. The overall planning should be reviewed annually and approved by senior management of UNIDO.

(iv) An Acquisitions Committee reporting directly to the Deputy Director-General of Administration should be established. This Committee should meet periodically and all proposals for EDP investment should be justified to and approved by it. This Group should be formed by officials from EDP, budgeting management and user areas, as appropriate.

TOO MUCH CAPACITY IN PRESENT MAINFRAME

29. The mainframe is substantially underutilized. The figures with respect to current utilization provided to the Group are incomplete and misleading. Even accepting them at face value, however, the mainframe average utilization during prime time does not exceed 30 per cent. With proper management, a mainframe of half the size of the current processor (perhaps even less), should be adequate to service UNIDO's central processing needs today and for the foreseeable future.

30. Carrying excess capacity for an extended period of time, as appears to be the case, is very costly since facilities management and software licence fees etc. are tied to the size of the CPU.

RECOMMENDATIONS

(i) Using the outside consultants' recommendations on interim sizing, renegotiate with the vendor to establish possible cost savings by immediate downsizing.

(ii) If the first recommendation is not viable, explore the possibility of a mainframe swap with a third party.

(iii) Selling computer time cannot be considered a solution to an excess computer capacity problem of this magnitude.

OFFICE AUTOMATION MAINTENANCE MAY BE TOO EXPENSIVE

31. The maintenance of the office automation hardware appears to be more costly than one would expect. This may be the result of the monopolistic position of the maintenance supplier or may be due to the age of the equipment.

RECOMMENDATIONS

(i) Explore option of letting this contract to third party vendor. If Vienna has alternate suppliers of this type of maintenance, the contract should be re-let.

(ii) If the age of the office automation equipment is the cause of high costs, evaluate advanced replacement options as a possible overall cost saver.

UNFOCUSED DEVELOPMENT EFFORT

32. The central EDP operation's software development efforts are unfocused. A large percentage of staff time appears to be devoted to "fire fighting" and making quick fixes to existing systems. There is no system of control in place to regulate the level of outside demands placed on central EDP for either human or financial resources. As a result, staff are harried and have little time for forward planning. In this environment, priority is determined by the urgency of a requirement, not its importance.

RECOMMENDATIONS

(i) EDP should establish systematic rules and procedures for project development, including procedural and technical standards for design, programming, documentation and control. Procedures should also include provisions for user acceptance and pilot testing of projects. Benefits and costs should be formally assessed before full implementation so that decisions can be made at a relatively early stage as to whether a project should be continued.

(ii) Administration should establish a transfer of pricing scheme for computer development work done by central EDP on user applications. A scheme similar to the one being implemented at IAEA would help to regulate demand on central EDP.

ARCHAIC AND INEFFICIENT APPLICATIONS AND DEVELOPMENT METHODS

33. The existing set of applications software is old and cumbersome. Developing and modifying applications of this type is extremely labour-intensive. Modern software development tools can improve productivity of EDP staff dramatically and facilitate the creation of fully integrated applications. Trying to build well-integrated, easily maintained applications using primitive development tools and methods is futile.

RECOMMENDATIONS

(i) EDP should not make major extensions to existing applications;

(ii) EDP should make the use of CASE tools (Computer Assisted Software Engineering) compulsory for all applications;

(iii) EDP staff should be trained in the use of CASE tools and methodologies;

(iv) Wherever possible, all applications should be developed and implemented in an integrated manner.

SINGLE-VENDOR MINDSET NARROWS OPTIONS AND INCREASES COSTS

34. UNIDO has never really attempted to go beyond IBM Hardware/Software-based solutions. This has narrowed its options and it has not been possible for it to take full advantage of all modern technological developments. Because of this tendency, the option that it selected in the past often resulted in a cost-ineffective solution. Moreover, getting tied down to a single vendor prohibits future migration to other possible and cost-effective architectures. It is also likely to lead to integration problems when other pieces of hardware and software are acquired in the future.

35. This problem will continue unless UNIDO makes a commitment towards OPEN SYSTEMS supported by a wide

range of vendors. This may be possible by retraining its existing staff and changing its recruitment policy.

RECOMMENDATIONS

(i) Standards should be established for operating environments, communications, networking, mainframes, mini-systems, desk tops and terminals. UNIDO should carefully evaluate all existing options, considering operational efficiency, UNIDO applications, productivity, etc., and to the extent possible stick to open systems standards.

(ii) UNIDO should recruit and hire EDP professionals with open systems knowledge and experience, particularly experience in more than one vendor environment.

(iii) Arrange retraining of existing staff in selected (standards) environments.

SYSTEMS THAT DO NOT IMPROVE THE PROCESS

36. The group noted a number of software systems that appeared to have a negligible or perhaps even a negative impact on operational efficiency. Most of the systems which have been examined by this group of experts do not produce real improvements in efficiency, as they are mere translations of existing procedures to a computerized environment (for example, forms which are typed by secretaries are afterwards introduced to the system by other people who retype what is already typed). If necessary to improve efficiency, administrative procedures should be revised when introducing automation.

37. No formal procedure is in place to review the effectiveness of automated systems in producing improvements to administrative procedure and reducing paper flow. Some of the systems we saw were ineffective because, despite their introduction, procedures of the parallel paper system were in no way modified to take advantage of the automation.

RECOMMENDATIONS

(i) Procedural changes required to achieve administrative and paper flow improvements through automation should be approved at the same time as the project is approved. Every proposal for a new development must include a description of the improvements and the benefits which are expected to be obtained. These objectives should always be quantified.

(ii) A system for auditing the results of automation projects should be established to measure the real achievements of new systems in relation to the quantified objectives previously agreed.

Annex

WORKING GROUP OF INDEPENDENT EXPERTS FUNDED BY MEMBER STATES
ON THE COMPUTERIZATION PROGRAMME IN UNIDO

List of Participants

NAME	SPONSORING COUNTRY
Mr. Bernard Ghislain Lacrosse Conseiller Scientifique	Belgium
Mme. Claude Trupin Auditeur à la Cour des Comptes	France
Dr. P. Dasgupta Divisional Manager Computer Maintenance Corporation	India
Mr. Morteza Shani Computer Expert	Islamic Republic of Iran
Mr. Kazuo Hata President, SIS Software Information Systems GMBH	Japan
Mr. Jerome I. Levinson Counsel, Arnold & Porter, Washington	Mexico (GRULAC)
Mr. Julio Martinez Meroño Sub-Director General, Tratamiento de la Información, Ministerio de Industria	Spain
Mr. Christian Etter EDP Expert, Ministry of Economy	Switzerland
Mr. Bernard Adamczewski (Co-ordinator) Fellow of British Computer Society	United Kingdom
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Dr. Rafael Diaz Director-General de Informatica Ministerio de Fomento	Venezuela

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Eighth session
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Programme and Budget Committee

Seventh session
Vienna, 22-26 April 1991
Item 17 of the provisional agenda

COMPUTERIZATION PROGRAMME OF UNIDO

Report of the working group of independent experts on the computerization of UNIDO*
(Vienna, 11-14 February 1991)

Addendum

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I. EXCHANGE OF CORRESPONDENCE BETWEEN THE EXPERT, MR. J. MARTINEZ MERONO AND MR. B. ADAMCZEWSKI, CHAIRMAN OF THE WORKING GROUP

Vienna, 15 February 1991

JMM/as

Dear Mr. Chairman,

May I send you this note to state my position regarding the document produced in the session which concluded yesterday.

As a result of this meeting, we drafted a document entitled "The Report of the Working Group of Independent Experts on the Computerization of UNIDO, Vienna, 11-14 February 1991".

From my point of view, this document reflects very precisely the technical aspects and considerations objective of the study. However, because of the pressure of time to draft it, I think there are some significant elements of the document which are not clear enough, especially those regarding the organization of work within the Group and the financial aspects of the computerization of UNIDO. In fact, I think that any reader of the document would not understand clearly which was the real position of the Group about these problems, and which I will later describe, as I see them.

In fact, none of the experts has signed it for the time being, and even a significant part of the Group has not even examined its last version, which was produced in the last minute, when some of the members of the Group had already left.

These alternatives are as follows:

First alternative

It basically consists of leaving everything as it is, maintaining the present computer systems, looking for the best way to finance the acquisitions already done.

We regard this alternative as completely inadequate. Firstly because this way, the organizational problems, which we believe are the real cause of the present situation, would not be solved. And secondly, because we are not confident of the 44 million dollar estimate of the programme, which we believe could be much higher.

At the present moment, it is impossible for us to estimate which would be the real cost of this alternative. If we wished to obtain it, we would need a detailed financial study. The position supported by the majority of members of the Group has been to consider this study as not necessary. The reason is that this alternative is obviously inadvisable, regardless the final figures which, with a better or worse accuracy, could be obtained.

* The present document has not been edited.

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However, the representative of France has defended the convenience of a further study of this issue, in order to provide better information for the choice between both alternatives.

Second alternative

To launch several substantial modifications in procedures and technical options within UNIDO, including, if possible, a redesign of its computerization structure, in order to better adequate it to the real needs of this Organization.

The Group considers this option as the only feasible. However, it has the handicap that at this stage it is impossible to calculate the savings which could be obtained in relation with the figure of 44 million dollars mentioned above. The reason is that these savings would depend on issues such as the negotiations with the suppliers of the equipments, specific technological decisions on final configurations, etc.

Consequently, the Group considered the need of an immediate appointment of a team of independent consultants, which should accomplish a detailed analysis of the real computer needs of UNIDO by 15 May 1991, as well as preparing the guidelines for an EDP policy according with the recommendations of this Group of experts. This appointment would be justified by the load of work implied (approx. 4-6 man/month to be accomplished in six weeks). Obviously, this work can not be done by the present Group of experts. However, the Group could co-ordinate the work of the consultants.

As a consequence of all this, I think that this document must be considered as a provisional one, and, in my opinion, the mandate that the Industrial Development Board gave to the Member States has not been yet completely fulfilled.

Sincerely yours,

Julio Martinez Meroño
Representative for Spain

Mr. Bernard Adamczewski
Chairman, Experts Group Meeting on
UNIDO Computerization Programme
(Vienna, 11-14 February 1991)
Vienna

B. Adamczewski
41 Gloucester Place
London W1H 3PD

21 February 1991

Dear Dr. Martinez,

Thank you for your letter of the 15 February 1991 which you personally gave me in Vienna that day. I am passing it and my answer to you on to Mr. Kayalar, the Secretary of the Industrial Development Board, as an addendum to our report. Had I only had it two hours earlier I could have dealt with it immediately, but I don't think the slight delay matters as all these things have to be properly and calmly considered in any case.

I entirely agree with what you set out in terms of the two alternatives and I believe you are correctly expanding on a smaller section in the report of the working group. I don't think that the working group's report states that the consultants to be employed should do 4-6 man/months work in 6 weeks, but merely that they should have an interim report prepared within 6 weeks of their appointment. This appointment itself must be made by the 1 April 1991, if UNIDO timetables are to be adhered to.

I even agree with you that the report our group prepared is "provisional" and may at any time be added to by any number of thoughts or deliberations to which the governments concerned wish, or can arrange for, relevant experts to devote time. I personally would be happy to sign it if required.

I personally do not believe that the question of the status of the report is the main issue. I and I believe, you and most of the other technical people who attended our meeting are convinced that UNIDO needs to take some urgent action for technical, administrative and contractual/legal reasons, all of which are compelling. So the main question is not how provisional our report and findings are but whether there is enough time to obtain findings that are nearer final or whether these "provisional" findings are going to be the best that can be obtained before many of the urgent deadlines are passed. As decisions have to be made in the next 2 or 3 weeks it is up to the respective governments to sort out between themselves whether they want better information before acting and so risk incurring technical failure, administrative difficulties and contractual/legal penalties as a result of any delay; or whether they will act - as any commercial organization would - immediately on the basis of the best available information even if the best we experts could currently say on the question of finances, is that the UNIDO computer system should cost much less that presently budgeted.

I am confident that as a group we did a good job, that our report points UNIDO in the right direction, and if it is followed up it will help to avert major financial and administrative problems.

I particularly enjoyed meeting you and getting some understanding of your work. I also appreciated the efforts you made to try and reconcile Mme Trupin to the position of the rest of us. I do hope the various governments keep our group alive and that we will be able to meet again, perhaps at an improved UNIDO.

Yours sincerely,

B. Adamczewski

Dr. Julio Martinez Meroño
Subdirector de Tratamiento de la Información
Ministerio de Industria y Energia
Paseo de la Castellana, 160
28046 Madrid
Spain

II. REPORT BY THE EXPERT, MR. J. I. LEVINSON

March 5, 1991

TELEFAX TRANSMISSION SHEET

TO: B. Adamczewski

FROM: Jerome I. Levinson

COMMENTS: My clients have authorized me to release to you the additional opinion I provided to them with respect to the validity of the IBM contracts. You are free to use it as you see fit as Chairman of the Group. I would appreciate your keeping me informed as this matter progresses.

Best regards.

Jerry Levinson

February 28, 1991

MEMORANDUM

TO: Ambassador Eugenio Anguiano, and
Ambassador Hernan Gutierrez

FROM: Jerome I. Levinson

RE: UNIDO Computerization Programme

BACKGROUND

1. The Industrial Development Board at its Seventh Session adopted decision IDB.7/Dec.26 on the computerization programme of UNIDO. In that decision, the Board decided to establish a working group of independent experts (the Group), to be funded by individual member States. The terms of reference of the Group were as follows:

"(i) To reassess UNIDO's needs regarding computerization from the technical point of view;

(ii) To examine the contractual aspects of the proceedings as well as the implications of the clauses within those contracts for UNIDO;

(iii) To study the financial options applicable to the EDP systems;

(iv) In light of this evaluation, to make appropriate recommendations on an EDP system."

2. The first meeting of the Group took place in Vienna at UNIDO's headquarters, February 11 through February 14, 1991. The Report of the Group was submitted through the Chairman of the Group, Mr. Bernard Adamczewski, to the Secretary of the Industrial Development Board, Mr. A. Kayalar, for transmittal to the Industrial Development Board.

3. The occasion for the appointment of the Group was the fact that the system contracted for by the UNIDO staff appeared to be far more expensive than the member Governments felt they had been led to believe it would cost and there were not sufficient budgeted funds to pay for the system. It is not clear as to whether this is the Final Report of the Group or whether there are to be further meetings.

4. The principal conclusions of the Group can be summarized as follows: (i) UNIDO had designed an Electronic Data Processing system (EDP) far in excess of its present and foreseeable needs; (ii) the mainframe was being used at a maximum of 30 per cent of its capacity and within the foreseeable future the excess capacity would not be absorbed by UNIDO or by third parties; (iii) the technical group could not agree on an alternative architecture, largely because no data base existed upon which to make a judgement; (iv) the UNIDO EDP staff did not have the technical capacity to design an alternative solution more in keeping with UNIDO's realistic needs, now and in the future; (v) the Group did not have confidence in the current estimates ($45 million) of the cost of the system that had been contracted. Consequently, additional work would need to be done to ascertain a realistic cost of the contracted system; (vi) the IBM mainframe and Facilities Management contracts contained provisions that permitted UNIDO to initiate a renegotiation of the hardware and software and management services that had been contracted with IBM.

5. The Group recommended that UNIDO (a) initiate renegotiation of the IBM mainframe contract to downsize the mainframe since under any conceivable set of assumptions, the mainframe contracted with IBM was far in excess of UNIDO's current and foreseeable needs (b) contract a further smaller group of experts to design an alternative solution for UNIDO's computerization requirements for the future. At the same time, the Group further agreed that the expert from France should seek to obtain a more accurate estimate of the cost of the system contracted by UNIDO. (Since the Group could not agree on an alternative technical solution, it was not possible to offer financial options applicable to the EDP system as requested by the terms of reference of IDB.7/Dec.26.)

6. The report of the Working Group of Independent Experts sets forth my view that (i) the IBM mainframe contract (UNIDO contract No. 89/467) specifically allows UNIDO to request a downsizing of the mainframe (and a change in the ancillary software and maintenance) without any penalty to UNIDO; and (ii) the Facilities Management Contract (UNIDO contract No. 90/335) permits a renegotiation and/or cancellation of the Facilities Management contract.

7. You have asked me to address the further question whether UNIDO staff exceeded their authority in entering into the IBM contracts and, if so, whether the contracts can be considered invalid. In my opinion, the UNIDO staff did exceed its authority in entering into the contracts with IBM. Whether an arbitrator would hold that the contracts were for that reason invalid may depend upon the law which is to govern the transaction.

This last question is not at all clear. (Under the UNIDO contracts with IBM, disputes are to be settled by arbitration.)

DISCUSSION

8. UNIDO became an independent United Nations Agency in 1986. There are three governing levels of UNIDO: the General Conference, which is made up of all member States and is the ultimate decision making body of UNIDO; the Industrial Development Board; and a Programme and Budget Committee. The latter two bodies have a composition which is less than the full membership of UNIDO. Programme and budget proposals emanate from the Director-General of the organization; a proposal is first presented to the Programme and Budget Committee (PBC). The PBC then makes its recommendation to the Industrial Development Board (IDB). And the IDB makes a final recommendation to the General Conference.

9. UNIDO operates on a biennium basis, that is to say that programmes are approved and funds appropriated for two-year periods. A decision on the budget and programme are considered final only after the General Conference has given its approval to them. The budget has different categories; the Director-General can make changes within categories, but to convert funds from one category to another requires the approval of the General Conference.

10. UNIDO had shared mainframe time and storage capacity with the International Atomic Energy Agency (IAEA). Sometime in 1987, however, UNIDO and IAEA concluded that the arrangement was not satisfactory and was likely to be even less satisfactory in the future. The UNIDO staff began to plan for a new arrangement based upon UNIDO having its own computerization system rather than sharing capacity with IAEA. UNIDO contracted an independent consulting firm, GMO, to design an alternative framework for its computer operations. Due to limitations of funding, GMO's recommendations were based upon a limited data base. Nevertheless, GMO confirmed the UNIDO staff's basic analysis that the best solution for UNIDO involved UNIDO having, among other things, its own mainframe capability.

11. The UNIDO computerization programme was conceived as a "whole package consisting of a new data centre with a mainframe, peripherals, a network of desk top equipment and related cabling for connection to the mainframe, maintenance, increased training including a physical site, personnel and new systems application." (IDB.7/31/Add.1, para. 3.) The GMO report (August 1988) recommended an IBM 3090-120 E mainframe with a storage capacity of about 10,000 million bytes and one communications controller for 28 lines. (GMO report p. 46 and figure 11.)

12. In March 1989, the UNIDO staff briefed the Permanent Missions of the member Governments of UNIDO with respect to the computer programme then under consideration, including the purchase of a mainframe with a capacity equivalent to an IBM 3090-120 E. The estimated cost of the entire system, including the proposed 3090-120 E type mainframe, was approximately $27.85 million. (IDB.7/31, para. 4.)

13. The informal briefing of the Permanent Missions was not a formal procedure of UNIDO equivalent to a presentation to the PBC. Nevertheless, it was a procedure initiated by the Director-General as a means of informing the Member States of current issues and getting a sense of their reactions.

14. Apparently, the reaction of the Permanent Missions was favourable to the UNIDO staff programme. (IDB.7/31, para. 5.) On the basis of this favourable reaction, the UNIDO staff proceeded with the plan for its own computerization programme. However, sometime in June 1989, the operating assumption of the programme changed. Instead of a mainframe capacity equivalent to the IBM 3090-120 E, the UNIDO staff concluded that projected growth in demand for UNIDO computer services would require a mainframe (and ancillary services) of substantially greater capacity. This change in plan from that recommended by the GMO report implied costs substantially in excess of the $27.85 million which had been presented to the Permanent Missions in the briefing of March 1989.

15. The cost implications of the higher capacity mainframe were realized by the technical staff and were brought by them to the attention of higher management. (Interview of Mr. Guzman with the Group of Experts.) However, Guzman and his technical group were advised to go ahead and plan for the more advanced mainframe. It is not clear precisely who gave the go-ahead and in what form (verbal or written). From interviews with the UNIDO staff, it appears the then Deputy Director/Administration of UNIDO, the second in command of the UNIDO staff, was the one who authorized the technical staff to proceed along the revised lines. This individual subsequently left the UNIDO staff and was replaced by the current Deputy Director, Mr. Charles Warner. No one could tell the Group the extent to which the Director-General himself was involved in the decision to authorize the EDP system based upon the higher-powered mainframe recommended by the technical staff.

16. What is clear is that the Director-General (or his Deputy) did not convoke a further informal meeting of the Permanent Missions to advise them of the changed assumptions with respect to the mainframe and the consequent higher costs of the programme.

17. The bid specification documentation was thus prepared not upon the mainframe information that had been provided to the Permanent Missions in the briefing of March 1989, but upon the revised plans of the UNIDO staff of June 1989. Requests for proposals then issued in September 1989 to 13 firms of which only three responded: affiliated firms of IBM, Hitachi and Olivetti. The latter two firms were disqualified for technical reasons. The mainframe contract was awarded to IBM. (I leave aside for purposes of this discussion various alleged defects in the bidding process.) The mainframe contracted for was an IBM 3090 250 S, a system more than twice as large as the maximum expansion ever envisaged by the GMO consultants.

18. By October, the UNIDO staff knew that the estimated cost of the system proposed to be contracted from IBM, including the higher-powered mainframe, was far in excess of the $27.85 million cost estimate presented to the Permanent Missions in March 1989. The programme had originally been proposed to be financed from savings to be achieved from (a) terminating the sharing arrangement with the IAEA and (b) redeployment of staff resources, but this financing assumption was obsolete the moment the UNIDO staff determined upon a higher capacity mainframe in June 1989.

19. Indeed, by October 1989 when the bids had been received and evaluated, for the 1990-1991 biennium, there was a shortfall of projected resources for the computerization programme of $4.7 million. The External Auditor aptly summarized the situation: "Since, as our review disclosed, it was perfectly clear in October 1989 (when the bids for the mainframe package were received) that there would be a substantial shortfall of resources (US$4.7 million) in 1990-1991, these facts should, in our view, have been brought to the attention of the General Conference." (Information Note, Report of the External Auditor on in-depth examination of all aspects of the acquisition of the EDP system, February 4, 1991, para. 83 (c); hereafter references to the Report are referred to as External Auditor Report, February 4.)

20. The General Conference had been scheduled to meet in November 1989 to consider the programme and budget for the biennium 1990-1991. In interviews with the Group, the UNIDO staff claims that it did attempt to bring to the attention of the General Conference the increased cost implications of the revised mainframe programme. It proposed that it be allowed to redeploy funds from the 1988-1989 biennium between categories to meet the higher costs. Such a redeployment required the approval of the General Conference.

21. However, nowhere did the UNIDO staff spell out the changed assumptions, the fact that it was proposing to contract for a larger mainframe capacity (and a more costly and sophisticated system) than it had informed the Permanent Missions in March 1989 and that consequently outlays in future years would be substantially higher than those presented to the Permanent Missions. Again, the External Auditor Report, February 4, observes: "As for the 1988-1989 appropriation redeployment proposals, the 1990-1991 budget proposals did not provide information on the commitments and estimates of other possible costs of the overall programme for subsequent bienniums". (The External Auditor Report, February 4, para. 83 (c).)

22. Since UNIDO operates on the basis of appropriations of funds for a biennium period, it has to obtain specific authorization from the General Conference for funding for multi-year outlays beyond any one biennium period. The Financial Rules of UNIDO provide that the Deputy Director, Administration "may approve commitments against current and future fiscal periods when they are necessary in the interests of the Organization, provided that such commitments are either: (i) for activities that have been approved by the Conference and that are expected to continue beyond the end of the current fiscal period; or (ii) authorized by specific decisions of the Conference". (Director-General's Bulletin, The Financial Rules of UNIDO, UNIDO/DG/B.74/Rev.1, 15 June 1990, Rule 109.6. The General Conference, by decision GC.2/Dec.25 of 12 November 1987, approved the Financial Regulations of UNIDO, which have been amended from time to time. The amendments do not appear to impact upon Rule 109.6.)

23. The General Conference in its meeting of November 20-24, 1989 did not approve the 1988-1989 appropriation redeployment proposals of the Director-General for the EDP programme. The Conference was never advised of the changed assumptions with respect to the mainframe and the consequent increased future costs of the programme. What the Conference did approve was a general statement in the introductory chapter acknowledging the increased efficiencies to be achieved by an enhanced EDP system, and the necessity for UNIDO to have its own mainframe, relinquishing its central processing capacity in the IAEA computer. And it concluded, "Financial resources to implement this new programme are expected to be met through the redeployment of resources at present earmarked for the joint computer service provided by the IAEA and, if necessary, through economies in staff and non-staff expenditures". (Programme and budgets, 1990-1991. Based on decision GC.3/Dec.23 and Resolutions adopted by the General Conference at its Third Session, GC.3/10/Rev.1, 12 April 1990, para. 30.)

24. In other words, the General Conference approved an EDP programme based upon the financial premises that had been presented to the Permanent Missions in the informal briefing of March 1989: that the programme would be financed through savings achieved by discontinuing the sharing arrangement with IAEA and redeployment of staff. Having failed to obtain the approval of the General Conference for the redeployment of 1988-1989 appropriations to help defray the increased cost of the enhanced system offered for bid in September of 1989, nevertheless, the UNIDO Administration signed the mainframe contract with IBM on December 7, 1989, barely three weeks after the close of the meeting of the General Conference.

25. In so doing, in my opinion, the Administration of UNIDO clearly exceeded its authority. It committed UNIDO to a multi-year appropriation of funds for the IBM contract without the clear approval of the General Conference for the system it proposed to contract. It therefore violated UNIDO's own Financial Rules, which had been approved by the General Conference.

26. In failing to disclose to the General Conference the fact that it had changed the basic assumption upon which it had obtained informal concurrence of the Permanent Missions for the EDP plan, namely, the size of the mainframe and therefore the estimated cost of the programme, the UNIDO staff came very near to deceiving the member Governments of UNIDO. (It escapes a categorical statement to that effect by virtue of having sought a redeployment of funds from the 1988-1989 biennium, a redeployment that the staff asserts constituted notice to the General Conference of a change in the EDP programme. However, as previously noted by the Auditor General, such a request hardly met the requirements of full disclosure to which the members of the General Conference were entitled.)

27. Whatever the moral or ethical considerations, the fact is that the Conference did not approve the requested redeployment. The UNIDO staff, consequently, was on notice that it did not have the approval of the Conference for the requisite funding of the enhanced programme proposed to be implemented by the staff.

28. In light of this record, the External Auditor characterizes the IBM contract commitment as "questionable". (External Auditor Report, February 4, para. 84.) In my opinion, this characterization is too generous. The UNIDO contract commitment to IBM exceeded the authority of the UNIDO staff. The relevant question then becomes, are the IBM contracts invalid by virtue of the fact that the UNIDO staff exceeded its authority in entering into such contracts? The answer to this question may depend upon what law is to be applied to the transaction.

29. The UNIDO contracts with IBM specifically provide that the General Conditions of UNIDO are incorporated as part of the contract. The General Conditions provide for dispute resolution through arbitration, using the United Nations arbitration mechanism. IBM has consequently foregone resort to the courts as a means of resolving any dispute that may arise. But the question still remains what law the arbitrator would apply to the dispute.

30. On its face, the choice of law would appear to be Austria: both parties to the contract are resident in Vienna; the contract was signed in Vienna. The delivery of the hardware and software and the performance of the services by IBM which are the subject-matter of the contracts are all to be performed in Vienna.

31. UNIDO, however, has not agreed to accept the application of Austrian law. The IBM contracts specifically provide that UNIDO has not waived its immunities under its Headquarters Agreement with the Government of Austria. Those immunities appear to be absolute. There is no equivalent in Austria of the Foreign Sovereign Immunities Act which prevails in the United States and which applies to international organizations resident in the United States. That legislation makes a distinction between commercial transaction entered into by such organizations and those which are inherent to their international functions. Commercial transactions subject the organization to the application of US law. No such limitation exists in Austria with respect to UNIDO or other international organizations resident in Austria. Hence, UNIDO may well object to invoking Austrian law to govern the transaction.

32. Moreover, arbitrators generally do not favour resolving disputes by means of legal interpretation. An arbitrator in a case like the one presented here may well resort to general principles of equity.

33. The substantive question is whether IBM could reasonably rely upon the apparent authority of the Deputy Administrator of UNIDO to sign the contract or whether IBM had a duty to ascertain that the Deputy Administrator did in fact have the authority to sign the contract. IBM would undoubtedly argue that UNIDO had allowed the Deputy Administrator in the past to sign vendor contracts. It therefore had conferred upon him the apparent authority to sign such contracts; vendors such as IBM could reasonably rely upon this past practice in assuming that the Deputy Administrator had the requisite authority without further investigation on the part of IBM. To do otherwise would be to unduly burden commercial transactions involving such international organizations as UNIDO and the vendors that deal with them. The lack of authority of the Deputy Administrator, IBM would argue, is an internal problem of UNIDO which should be dealt with as a UNIDO personnel problem.

34. There is a certain plausibility to the argument and in the United States there is some case law involving the doctrine of apparent authority which might give substance to the argument. Even in the United States, however, the case law with respect to apparent authority is murky. And in the context of the IBM transaction, the argument is unconvincing.

35. IBM is not a "mom and pop grocery store". It has a long-standing relationship with UNIDO. It was or should have been familiar with the financial constraints which had plagued the Organization. It must have known the UNIDO internal procedures which governed major expenditures and the requirement of approval by the General Conference for multi-year financial commitments. And if it did not know them, it should have known them.

36. It is not uncommon for other international organizations when entering into major financial transactions to be asked to provide a legal opinion as to the authority to enter into such transactions. For example, when the Inter-American Development Bank or the World Bank offer their bonds for sale in the financial markets, they must provide an opinion of counsel affirming that all internal approvals, according to a specific resolution authorizing the transaction, have been obtained for the proposed transaction, that the organization has the authority to consummate the transaction and the person signing on behalf of the organization is duly authorized to sign. To require the same level of care from IBM in ascertaining that a multi-million dollar transaction involving multi-year commitments by UNIDO had been duly authorized by UNIDO does not impose an intolerable burden upon a vendor such as IBM.

37. In sum, UNIDO has good legal grounds for seeking a renegotiation of its contracts with IBM. As noted in the Report of the Group of Experts, UNIDO can invoke the specific terms of the contract to request a change in the Deliverables and Services; IBM, by the terms of the contract, must respond. UNIDO can also invoke the "circumstances beyond its control" clause of the mainframe contract (section 12), should the member countries not agree to fund the contract. In the last analysis, UNIDO can declare the contracts invalid because there was no authority to contract the goods and services from IBM that were agreed.

38. In both the last two cases, UNIDO would be entering into uncharted legal waters. There are no clear precedents as to what constitutes "circumstances beyond its control"; and the question as to whether the UNIDO staff exceeded its authority and, if they did, as I believe they did, the legal consequences that follow from that fact cannot be predicted with a high degree of certainty. Whatever the uncertainties, however, UNIDO's legal bargaining position is at least as strong as that of IBM.

39. The more serious problem, in my view, is that the UNIDO staff does not agree with the opinion of the technical experts that the EDP architecture is the wrong design for the EDP for UNIDO; they want the system they have bought and they believe that it is the one that is technically correct for UNIDO for the medium and long term. Their heart is simply not in a renegotiation of the terms of the system that has been purchased from IBM. That is the dilemma that the member Governments of UNIDO face in this matter much more than any legal question.

III. REPORT BY THE EXPERT, MS. C. TRUPIN

(8 March 1991)

I. Résumé of the facts

I-1. Hasty and poorly planned computerization

In March 1989 the UNIDO Secretariat presented a computerization programme for the Organization informally to Member States. The estimated benefits were, in essence, of three kinds:

- A significant increase in productivity notably in the light of the constraints imposed by "zero growth";

- Increased autonomy for UNIDO, whose growing needs were said not to have been adequately catered for by IAEA;

- Finally, but as a secondary consideration, catching up with other organizations in the United Nations system.

At the time, the cost, based on a report carried out by the company GMO, was estimated at $US 27.8 million. It very soon became apparent that this figure had been significantly underestimated both because of the, to say the least, summary nature of GMO's work - resulting in a very imprecise evaluation of needs - and on account of an upgrading of the technical specifications of the system envisaged, particularly the central mainframe computer. In March 1990, the Secretariat gave the figure $US 44,360,000 for the cost of computerization. This estimate has since been continually repeated, in particular in the "Report on the development of the electronic data-processing programme of UNIDO" (IDB.7/31) submitted last October by the Director-General to the Programme and Budget Committee in response to conclusion 1990/2. Some data for assessing the reliability of this estimate are presented below.

I-2. Numerous deficiencies during implementation

The report drawn up by the external auditors at the request of the Board has brought to light a great many deficiencies, whether it be the absence of a feasibility study worthy of the name, any serious evaluation of needs or an overall plan; astonishing procedures for approving certain contracts, a series of hasty decisions and the continual calling in question of the programme modalities.

Given the scope and seriousness of the investigations carried out by the external auditors, the present report will not cover these various points again, but will confine itself to providing some data, on the one hand, on the current financial status of the computerization programme and, on the other, on the relevance of the solutions envisaged by the Secretariat. Owing to the brevity of the mission, major defects in the internal control systems of UNIDO and the high turnover of responsible officials, especially financial officials, in charge of the matter, some aspects remain fragmented or need to be completed.

Without overlooking these limitations which only an in-depth study on the financial and technical level could overcome, it seemed useful to inform the Board right now of a number of conclusions, even if they need to be refined, on account of the gravity of the situation which UNIDO has to face and the urgency of the solutions required.

II. The current financial situation

II-1. Evaluation of the current situation

The analysis of the financial situation relating to the computerization programme of UNIDO was submitted to the Programme and Budget Committee in October 1990. An overall summary can be made as follows, distinguishing contracts signed, purchases made and items to be acquired subsequently to enable the system to operate in a satisfactory manner.

Millions of $US	1989	1990-1991	1992-1993	1994-1995	Total
Contracts	3.69	6.42	8.26	5.38	23.75
Purchases	6.02	1.20	-	-	7.22
Future requirements	-	2.99	4.97	5.43	13.39
Total	9.71	10.61	13.23	10.81	44.36

This table reveals an increase of more than 60 per cent compared with the initial figures.

The estimates by object of expenditure are also shown broken down in annex I.

The essential elements are synthesized below.

	Total (millions of $US)	As percentage of total
Mainframe computer		
* Hardware		
- Total including future requirements	7.76	17.5%
(as percentage of total object of expenditure)	14.3%	
* Software		
- Total including future requirements	5.25	11.8%
as percentage	2.1%	
* Operation		
- Total including future requirements	6.18	13.9%
	0%	
* Maintenance		
- Total including future requirements	2.25	5.1%
	62.2%	
Office automation		
* Hardware		
- Total including future requirements	5.08	11.4%
	31.9%	
* Software		
- Total including future requirements	1.82	4.1%
	41.3%	
* Maintenance		
- Total including future requirements	3.26	7.3%
	18.2%	

	Total (millions of $US)	As percentage of total
Installation and supplies		
- Total	1.51	3.4%
including future requirements	0%	
Network		
- Total	3.23	7.3%
including future requirements	40.2%	
IAEA/ICC		
- Total	1.75	3.9%
including future requirements	100%	
Staff		
- Total	4.15	9.4%
including future requirements	100%	
Training		
- Total	2.12	4.8%
including future requirements	100%	
GRAND TOTAL	44.36	100%
including future requirements	30.2%	

These figures call for the following remarks:

- The elements relating to contracts were calculated from the clauses of various legal documents actually signed by UNIDO as of the date when the document was prepared (October 1990). However, no account was taken of the effect of inflation in cases where the contract had an indexation clause; equally, with the exception of the contract for the central system (No. 89-467), the possible termination payments at the end of the lease were not taken into account. There are also one or two instances of double counting, the same item being included both in purchases and in contracts.

  These errors of detail, regrettable and revealing of the rough-and-ready nature of the methods employed as they are, do not significantly change the figure of $US 23,750,000 for the period 1989-1995. Of this amount, $US 17,590,000 were outstanding 1/ at 31 December 1990. These financial data naturally exclude the effects, impossible to quantify at the present time, of possible renegotiation of some of the contracts concluded.

- The figures relating to purchases ($US 7,220,000 in 1989 and 1990), although this is not very clearly indicated in paragraph 16 of document IDB.7/31, represent sums for one-time obligations already settled at the date of the document. The amount is therefore certain and the corresponding sums have already passed through the accounts of UNIDO.

- While the degree of reliability of the two items above is broadly acceptable, the same is in no way true of the figure of $US 13,390,000 relating to "future requirements". It transpires from investigations undertaken that this amount was hastily determined, in February 1990, in less than a week and without any reliable system for gathering and verifying data being set up. In particular, the estimate was prepared by the EDP Service on its own and not checked by any other service. The corresponding documents, considered as working documents, are not accessible. These data, approximate to say the least, have not been updated since then and therefore do not take account of price changes or technological developments or of any modifications arising from the system actually installed. Moreover, although these estimates relate to the current biennium and the two following, inflation has not been included. Depending on the assumptions used, this omission alone could lead to an underestimate of the costs involved of between 25 and 40 per cent ($US 3 million to 5.5 million). These various points lead one to place absolutely no reliance on the item "future requirements".

The objects of expenditure most sensitive to this imprecision are:

- Costs of training, staff and computer cooperation with other organizations in the VIC, for which "future requirements" represent the total corresponding amounts ($US 8 million in total);

- Hardware and software costs for office automation, in which "future requirements" represent from 32 to 42 per cent of items or a total of $US 2.4 million;

- Network costs (40 per cent future needs or $US 1.3 million);

- Finally costs arising from mainframe maintenance (62 per cent "future requirements" or $US 1.4 million).

There is thus, in conclusion, a high degree of uncertainty, probably involving increases, given the lack of formalized procedures for developing projects which gives rise to constant upward pressure, concerning more than a third of the financial estimate presented by the Secretariat, which deprives it of any pertinence or credibility.

II.2. Analysis of the main increases

The table provided in annex II compares line by line the initial and revised estimates as they emerge from the various documents drawn up by the Secretariat. The total is as follows:

1/ Figure extracted from the report of the external auditors (paragraph 30).

	1989	1990-1991	1992-1993	1994-1995	Total
GRAND TOTAL					
Initial estimate	7.60	3.68	9.05	7.52	27.85
Revised estimate	9.71	10.61	13.23	10.81	44.36

Account being taken of the substantive reservations mentioned above and those connected with the reliability of the figures corresponding to future requirements, the items concerned may be summarized as follows:

		Percentage increase
Mainframe		
* Hardware:	initial estimate/ revised estimate	32.9%
* Software:	initial estimate/ revised estimate	73.5%
* Operation:	initial estimate/ revised estimate	121.5%
* Maintenance:	initial estimate/ revised estimate	78.8%
Office automation		
* Hardware:	initial estimate/ revised estimate	-19.6%
* Software:	initial estimate/ revised estimate	175.7%
* Maintenance:	initial estimate/ revised estimate	302.5%
Installation/supplies		
Initial estimate/revised estimate		221.3%
Network		
Initial estimate/revised estimate		n.a.
IAEA/ICC		
Initial estimate/revised estimate		-24.2%
Staff		
Initial estimate/revised estimate		4.5%
Training		
Initial estimate/revised estimate		430%
GRAND TOTAL		
Initial estimate/revised estimate		59.3%

These figures show very considerable increases for virtually all of the items considered:

- Expenditure for the mainframe thus rose from $US 12.9 million to $US 21.4 million, an increase of 66 per cent;
- Office automation expenditure rose from $US 7.8 million to $US 10.2 million (plus 30 per cent);
- Installation expenditure rose from $US 0.5 million to $US 1.5 million, that is to say a threefold increase, and the cost estimate for training rose by a factor of 5 ($US 2.1 million);
- Finally, for information, mention should be made of the cabling, which was initially forgotten although the system architecture was centralized, and was subsequently estimated at more than $3 million.

III. Solutions envisaged

The limits of the various solutions envisaged by the Secretariat are outlined below:

III-1. Rescheduling of expenditures: leasing-cum-instalment contract option: a way out making it possible to lighten the cash-flow burden, but more expensive in the long run

UNIDO considered with IBM a possibility for rescheduling the contract for the mainframe which was submitted to the programme committee in October 1990. To put it briefly, without going into technical details, this option amounts to backing up the current leasing-cum-buyout contract with a credit facility.

The comparative payment timetables for the two solutions are as follows:

Payments	Existing contract	Option envisaged
1989-1991	32.7	32.7
1992-1993	35.7	22.8
1994-1995	11.9	21.4
1996	-	10.8
Total	80.3	87.7

The payments would continue until 1996 instead of being completed (including the end-of-contract premium) in 1994, as in the case of the present contract. The consequence for UNIDO of this rescheduling, which would admittedly have the advantage of easing the cash-flow situation, would ultimately be an additional cost of 7.4 million Austrian schillings, i.e. about $US 0.6 million. It seems therefore that this solution should be ruled out, particularly since there is nothing to oblige the Organization to go through IBM to reschedule its debt.

III-2. Reduction of costs: imprecise and unconvincing savings

The following table outlines the financing of the reduced programme, as submitted by the Secretariat.

	1989	1990-1991	1992-1993	1994-1995	Total
Estimated expenditures	9.7	10.25	10.46	9.22	39.63
Financing:					
- Regular budget		4.06	4.20	6.32	
- Unused balance carried over		4.02	-	-	
- New Members' contributions		0.27	-	-	
- Operational budget		1.90	4.14	3.54	
- Savings generated		-	2.12	(0.64)	

The main savings envisaged are outlined below.

	Normal programme	Reduced programme
Mainframe		
* Hardware - Total	7.76	7.50
* Software - Total	5.25	5.25
* Operation - Total	6.18	5.38
* Maintenance - Total	2.25	2.24
Office automation		
* Hardware - Total	5.08	4.57
* Software - Total	1.82	1.46
* Maintenance - Total	3.26	2.96
Installation/supplies		
- Total	1.51	1.51
Network		
- Total	3.23	2.51
IAEA/ICC		
- Total	1.75	1.75
Staff		
- Total	4.15	3.25
Training		
- Total	2.12	1.26
GRAND TOTAL	44.36	39.64

These savings were calculated on the basis of an a priori objective of cutting expenditure and not, as would have been logical, on the basis of the establishment of a precise hierarchy of the respective priorities of the different applications. The methodology used in their calculation also prompts the same reservations as with regard to the estimates of future requirements mentioned above. They are therefore to be considered with the greatest caution, particularly since they relate in part to items that are specially difficult to estimate, such as training, in which excessive reductions might in the end prove counter-productive.

III-3. Increased income: a very uncertain path

The following table summarizes the financing of the programme revised to include income as established by UNIDO.

	1989	1990-1991	1992-1993	1994-1995	Total
Possible income	-	0.34	2.00	2.00	
Estimated expenditures	9.7	10.25	10.46	9.22	44.36
Financing requirements	9.7	9.91	8.46	7.22	35.29
Financing:					
- Regular budget		4.06	4.20	5.12	
- Unused balance carried over		3.68	-	-	
- New Members' contributions		0.27	-	-	
- Operational budget		1.90	3.34	3.24	
- Savings generated		-	0.92	(1.14)	

These income forecasts, in excess of $US 4 million for the next two bienniums, seem highly imaginative. What emerges, without ambiguity, from the recent exchanges of correspondence between UNIDO and IAEA is that the guiding principles governing the computerization of IAEA are based on totally different hardware, software and technologies. Furthermore, most circumspectly, the Agency wishes to avoid being in any way tied to a supplier holding a virtual

monopoly, which would have been the case had it shared UNIDO's installations.

In this connection, the question has recently been settled - in favour of independent computerization - by the decision-making organs of the Agency, finally killing off the $US 35,290,000 scenario envisaged by UNIDO.

III-4. Substantive uncertainties regarding the envisaged financing modalities

The funding of the initial programme is outlined below.

	1989	1990-1991	1992-1993	1994-1995	Total
Estimated expenditures	9.7	10.61	13.23	10.81	44.36
Financing:					
- Regular budget		4.06	4.20	6.32	
- Unused balance carried over		4.38	-	-	
- New Members' contributions		0.27	-	-	
- Operational budget		1.90	2.14	4.14	
- Savings generated		-	6.89	0.35	

The various items relating to income prompt the following comments:

- Charging of a fraction of the expenditures to the operational budget

Even though several of the applications envisaged are undeniably connected with projects piloted by UNIDO, the current modalities applied in charging a fraction of the expenditures ($US 1.9 million, $US 2,140,000 and $US 4,140,000 respectively) to the operational budget are not satisfactory.

The Organization's financial services are making the operational budget bear the non-financed balance on other items of data-processing expenditure, without justification of the fraction involved. The financial regulations of UNIDO, particularly regulation 3.3, 2/ clearly indicate a principle of "specificity" of the operational budget, which implicitly presupposes that only expenditures connected with technical assistance may be included therein. In these circumstances, far more precise justification should be provided for the amount charged.

- Use of the unused balance from previous years ($US 4,380,000 in 1990-1991)

This item raises a problem of substance because of the uncertainty regarding the real availability of the funds.

Thus regulation 4.2 (b) requires that regular budget appropriations not spent 12 months after the end of the fiscal period must be returned to the Member States. A decision by the Board is necessary, in any event, to provide for a waiver of this provision and to authorize the allocation of these unused funds to data-processing expenditures.

The budget for the biennium 1986-1987 was established in the traditional manner, on the basis of anticipated contributions from Member States. A number of Member States did not in fact pay, meaning that their contributions should be considered fictitious income. Although the corresponding funds are legally the property of UNIDO, they cannot be regarded as cash in hand in any way. Their possible use to finance data processing therefore requires, first and foremost, that they in fact be received, and it can certainly not be assumed that this will happen. The most serious reservations must therefore be expressed as far as their actual availability is concerned.

- Savings generated for the regular budget

The financing plan submitted indicates combined savings of $US 7,240,000 (6,890,000 plus 350,000) from 1992 to 1995. Some remarks are called for as far as the pertinence of these figures is concerned. At the technical level, the studies carried out concerning savings generated by computerization were very superficial or indeed non-existent, some figures having been simply taken from the GMO study. They should therefore be treated with extreme caution.

Moreover, it is essential to note that, if one approaches the matter from the viewpoint of the Organization's cash situation, rather than from the viewpoint of its budget, the sums mentioned must be additional savings in relation to the actual present situation and not in relation to the theoretical situation corresponding to the payment of all contributions. Thus, if by reason of its financial situation UNIDO has a vacancy rate higher than the obligatory 5 per cent, these vacancies, although they appear as "savings" on the basis of a comparison with the budget lines corresponding to authorized posts, have no counterpart in terms of available cash owing to the non-payment of certain contributions. The financing of the data-processing programme - which involves cash outlays - by savings presupposes, therefore, all other things being equal, that a net gain of $US 7,240,000 will be achieved in staff costs by 1995, and therefore that about 30-50 posts will actually be frozen.

- Contributions from new Member States ($US 270,000) also represent a very uncertain item which it would be hazardous to take for granted.

III-5. Available funds

UNIDO is in a particularly difficult financial situation at the present time. The only funds available are represented by the operational budget reserve, of which the part over and above the mandatory reserve, and therefore the usable part, is about $US 7 million. Regarding the regular budget, cash-flow forecasts for 1991 show strongly and increasingly negative monthly balances from April onwards, with deficits ranging from $US 400,000 to $US 18.3 million. In total, the closing balance for the financial year 1991 will be a debit balance of around $US 10 million. No sign of an appreciable improvement in this situation is discernible in the medium term. In this context, resources that can be assigned to the computerization programme are almost non-existent.

2/ Regulation 3.3 (b): An operational budget to be financed from voluntary contributions to the Organization and from such other income as is provided for in the present Regulations, including reimbursement of support costs of technical assistance activities, which shall provide for expenditures for technical assistance and other related activities.

It seems essential to decide on a maximum threshold of financially acceptable expenditures for UNIDO taking into account this de facto situation. This threshold, which it will admittedly be a delicate matter to decide on, can be calculated either in absolute terms or as a percentage of the regular operational budgets.

In comparative terms, and without an exhaustive study having been possible, it would seem that the data-processing expenditures of UNIDO, in relation to its budget, are more than twice those of FAO and ILO. Thus for the 1990-1991 biennium, data-processing expenditures represented about 5.7 per cent of the regular budget, and came to about 4 per cent as a percentage of the total of the operational and regular budgets.

It should also be pointed out that the computerization programme adopted for the International Atomic Energy Agency is $US 5 million, for an organization which is comparable in size to UNIDO but whose financial situation is incomparably better.

These various considerations lead to the conclusion that it is both possible, in the light of what has been done by other organizations, and indispensable in view of the cash situation of UNIDO to establish an imperative figure for future computerization costs of around $US 10 million. It may be added that it would be reasonable for the ceiling of expenditures per biennium not to exceed 2 per cent of the combined total of the regular and operational budgets, on the understanding that the Secretariat must justify in detail the sums charged to the latter.

ANNEX I. Breakdown of estimates by item

	1989	1990-1991	1992-1993	1994-1995	Total
Mainframe					
* Hardware					
- Contracts	2.05	0.79	2.77	0.69	6.30
- Purchases	0.35	-	-	-	0.35
- Future requirements	-	0.14	0.48	0.49	1.11
Total	2.40	0.93	3.25	1.18	7.76
* Software					
- Contracts	0.38	1.39	1.67	1.66	5.10
- Purchases	0.02	0.02	-	-	0.04
- Future requirements	-	0.02	0.04	0.05	0.11
Total	0.40	1.43	1.71	1.71	5.25
* Operation					
- Contracts	-	2.18	2.00	2.00	6.18
- Purchases	-	-	-	-	-
- Future requirements	-	-	-	-	-
Total	-	2.18	2.00	2.00	6.18
* Maintenance					
- Contracts	-	0.26	0.29	0.29	0.85
- Purchases	-	-	-	-	-
- Future requirements	-	0.10	0.62	0.68	1.40
Total	-	0.38	0.91	0.97	2.25
Office automation					
* Hardware					
- Contracts	0.28	0.68	0.48	-	1.42
- Purchases	1.99	0.05	-	-	2.04
- Future requirements	-	0.50	0.48	0.66	1.62
Total	2.25	1.23	0.94	0.66	5.08
* Software					
- Contracts	0.04	0.05	-	-	0.09
- Purchases	0.78	0.18	-	-	0.96
- Future requirements	-	0.01	0.38	0.38	0.77
Total	0.82	0.24	0.38	0.38	1.82
* Maintenance					
- Contracts	0.10	0.96	0.94	0.63	2.62
- Purchases	0.04	-	-	-	0.04
- Future requirements	-	-	0.27	0.33	0.60
Total	0.14	0.96	1.21	0.96	3.26
Installation-supplies					
- Contracts	-	-	-	-	-
- Purchases	1.19	0.32	-	-	1.51
- Future requirements	-	-	-	-	-
Total	1.19	0.32	-	-	1.51
Network					
- Contracts	0.86	0.11	0.11	0.11	1.18
- Purchases	0.68	0.08	-	-	0.74
- Future requirements	-	0.58	0.44	0.28	1.30
Total	1.52	0.77	0.55	0.39	3.23
IAEA/ICC	0.99	0.60	0.07	0.09	1.75
Staff	-	0.85	1.65	1.65	4.15
Training	-	0.78	0.56	0.81	2.12
GRAND TOTAL	9.71	10.61	13.23	10.81	44.36

ANNEX II. Detailed analysis of increases over initial estimates

	1989	1990-1991	1992-1993	1994-1995	Total
Mainframe					
* Hardware					
Initial estimate	1.74	0.55	2.10	1.45	5.84
Revised estimate	2.40	0.93	3.25	1.18	7.76
* Software					
Initial estimate	0.84	0.26	1.13	0.79	3.02
Revised estimate	0.40	1.43	1.71	1.71	5.25
* Operation					
Initial estimate	0.24	0.70	0.92	0.93	2.79
Revised estimate	-	2.18	2.00	2.00	6.18
* Maintenance					
Initial estimate	0.06	0.23	0.46	0.51	1.26
Revised estimate	-	0.36	0.91	0.97	2.25
Office automation					
* Hardware					
Initial estimate	2.09	0.65	2.11	1.47	6.32
Revised estimate	2.25	1.22	0.94	0.67	5.08
* Software					
Initial estimate	0.22	0.07	0.22	0.15	0.66
Revised estimate	0.82	0.24	0.38	0.38	1.82
* Maintenance					
Initial estimate	0.06	0.20	0.22	0.33	0.81
Revised estimate	0.14	0.96	1.21	0.96	3.26
Installation/supplies					
Initial estimate	0.47	-	-	-	0.47
Revised estimate	1.19	0.32	-	-	1.51
Network					
Initial estimate	-	-	-	-	-
Revised estimate	1.52	0.77	0.55	0.39	3.23
IAEA/ICC					
Initial estimate	1.88	0.43	-	-	2.31
Revised estimate	0.99	0.60	0.07	0.09	1.75
Staff					
Initial estimate	-	0.40	1.77	1.80	3.97
Revised estimate	-	0.85	1.65	1.65	4.15
Training					
Initial estimate	-	0.19	0.12	0.09	0.40
Revised estimate	-	0.75	0.56	0.81	2.12
GRAND TOTAL					
Initial estimate	7.60	3.68	9.05	7.52	27.85
Revised estimate	9.71	10.61	13.23	10.81	44.36

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WORKING CAPITAL FUND

Proposals for the Working Capital Fund for the biennium 1992-1993

Note by the Director-General

Summary

On the basis of experience gathered in the biennium 1990-1991, makes proposals on the level and authorized purposes of the Working Capital Fund for the biennium 1992-1993.

Introduction

1. In accordance with financial regulation 5.4(a), the Programme and Budget Committee should recommend to the Board the amount and purposes of the Working Capital Fund.

2. Financial regulation 5.4(b) stipulates that "the source of moneys for the Fund shall be advances from Members, which shall be made in the proportion of the scale of assessments established by the Conference for the contributions of Members to the regular budget. The advances shall be carried to the credit of the respective Members who made the advances."

Biennium 1990-1991

3. In its decision GC.3/Dec.20, the General Conference decided that the level of the Working Capital Fund should be $9 million and that the authorized purposes of the Fund should remain the same as for the 1988-1989 biennium. Accordingly, the Conference authorized the Director-General to advance from the Fund during the 1990-1991 biennium:

"(i) Such sums as might be necessary to finance budgetary appropriations pending the receipt of contributions; sums so advanced should be reimbursed as soon as receipts from contributions were available for that purpose;

"(ii) Such sums as might be necessary to finance unforeseen and extraordinary expenses, excluding expenditures intended to compensate for any losses caused by fluctuation in exchange rates; for sums so advanced, the Director-General should make provision in the budget estimates for reimbursing the Working Capital Fund." (GC.2/Dec.27(b)).

4. The Conference also decided that the advances to the Working Capital Fund should continue to be assessed and paid in United States dollars, as stated in financial regulation 5.5(d).

5. As at 31 December 1990, the status of advances from Member States to the Working Capital Fund was $8,959,772. During 1990, UNIDO had to make several withdrawals amounting to $8,190,000 to cover shortfalls in the collection of assessed contributions and to meet the monthly payrolls. As of 31 December 1990, the cash balance in the Working Capital Fund amounted to only $769,772. Due to the persistently critical cash-flow situation during 1990, assessed contributions received could not be used to replenish the Working Capital Fund. Present estimates of cash flow indicate that the Fund will be completely exhausted before the end of 1991.

6. The Working Capital Fund, having been utilized to finance budgetary appropriations pending the receipt of contributions, would normally be replenished as soon as and to the extent that contributions or advances from Member States are available for that purpose. Until this occurs, the Organization has no funds available to bridge any short-term gaps in the flow of funds from assessed contributions.

7. The decision of the General Conference to suspend temporarily financial regulations 4.2(b) and 4.2(c) with respect to the 1986-1987 biennium to allow UNIDO to retain the unutilized balance of the appropriations (GC.3/Dec.17(c)) has provided additional working capital. Without the suspension of these financial regulations, the current cash crisis of UNIDO would have been even more critical.

Proposals for the biennium 1992-1993

8. It is proposed that the current level of the Working Capital Fund of $9 million be maintained for

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1992-1993 and that the purposes of the Fund continue to be those established by the Conference in its decision GC.2/Dec.27(b).

9. On the basis of experience gathered since the 1986-1987 biennium, the Director-General assumes that most Member States will eventually meet their obligations to pay their outstanding assessed contributions in the future, thereby providing funds to replenish the Working Capital Fund. However, the Director-General is concerned that it does not seem likely that sufficient Member States will meet their obligations fully during 1991.

ACTION REQUIRED BY THE COMMITTEE

10. The Committee may wish to recommend to the Industrial Development Board that it: (a) recommend to the General Conference that the level of the Working Capital Fund and the authorized purposes of the Fund for the 1992-1993 biennium remain the same as for the 1990-1991 biennium; (b) urge Member States to pay their outstanding assessed contributions as soon as possible to facilitate reimbursement to the Working Capital Fund; and (c) consider other ways of restoring the Working Capital Fund to its authorized level.